

**Falcon Refinery Superfund Site  
Ingleside  
San Patricio County, Texas  
TXD 086 278 058**

**Monthly Progress Report # 66**

**October 2011**

**Prepared for**

**National Oil and Recovery Corporation  
3717 Bowne Street  
Flushing, NY 11354**

**Prepared by**



**505 East Huntland Drive  
Suite 250  
Austin, Texas 78752**

**November 10, 2011**

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## 1.0 INTRODUCTION

This sixty-sixth Monthly Progress Report is submitted in accordance with the Falcon Refinery Site Administrative Orders on Consent for Removal Action and Remedial Investigation / Feasibility Study between the U.S. Environmental Protection Agency (U.S. EPA) and National Oil Recovery Corporation (NORCO).

This Monthly Progress Report and subsequent reports will address activities associated with both of the orders.

The next monthly progress report, covering November, 2011 will be submitted on or before December 10, 2011.

## 2.0 COMPLETED ACTIVITIES

### 2.1 Removal Action Activities

During October the focus of activities was the removal and transfer of sludge, decontamination, demolition and/or the removal/transportation of the tanks from the Falcon Refinery to Commercial Metals (CMC recycling) in Corpus Christi, TX. Provided below is a summary of the activities associated with the tanks.

- Tank 10 - The rainwater and sludge have been removed from this tank and the floor and walls have been cleaned.
- Tank 17 – The waste in the tank was removed, the tank was cleaned based on the approved work plan and tank was removed from the property and recycled.
- Tank 18 - The waste in the tank was removed, the tank was cleaned based on the approved work plan and tank was removed from the property and recycled.
- Tank 19 - The waste in the tank was removed, the tank was cleaned based on the approved work plan and tank was removed from the property and recycled.
- Tank 20 – The upper portion of the tank was removed and recycled. The caustic waste that was in this tank was manifested to US Ecology on October 31<sup>st</sup>.
- Tank 21 – The waste in the tank was removed, the tank was cleaned based on the approved work plan and tank was removed from the property and recycled.
- Tank 22 - The waste in the tank was removed, the tank was cleaned based on the approved work plan and tank was removed from the property and recycled.
- Tank 23 - The waste in the tank was removed, the tank was cleaned based on the approved work plan and tank was removed from the property and recycled.
- Tank 24 - The waste in the tank was removed, the tank was cleaned based on the approved work plan and tank was removed from the property and recycled.
- Tank 27 – The rainwater and sludge have been removed from this tank and the floor and walls have been cleaned.
- Tank Y1 –Liquids from this tank were removed.

Comments were received from the TCEQ and additional data were provided to obtain a permit to discharge the rainwater via irrigation from Tank 26 to the vacant field on the southwestern portion of the refinery property.

During October 42 tons of caustic waste was properly characterized, manifested and sent to US Ecology for disposal. Copies of the manifest are provided in Appendix 1.

Provided in Appendix 2 are analytical results of the sampling of sludge, liquid waste and asbestos. The results have been used to characterize the waste for proper disposal.

To date a total of approximately 7,774,721 gallons of hazardous waste have been removed from all of the above ground tanks and disposed via deep well injection at Texas Molecular.

Prior to the beginning of liquid waste disposal in October 2004, the volume of waste in the above ground storage tanks was measured at 6,844,094 gallons. Apparently due to holes in the tops of the tanks the volume of waste has increased due to rainfall, since more waste has been disposed of than was originally measured.

A compilation of hazardous liquid waste disposal is included as Table 1.

## **2.2 Remedial Investigation / Feasibility Study (RI/FS)**

During September 2011 the EPA provided NORCO an Agreed Order for Resumption of Remedial Investigation and Feasibility Study at the Falcon Refinery Superfund Site, Ingleside, San Patricio County, Texas.

Access agreements have been sent out to adjacent land owners and land owners of background sampling locations. Additionally meetings were held with representatives of San Patricio Count and the City of Ingleside to obtain access on municipal and county right-of-ways.

## **3.0 CHANGES MADE IN THE PLANS DURING THE REPORTING PERIOD**

None during the month.

## **4.0 COMMUNITY RELATIONS**

The EPA has developed a web site to display information about the Removal Action and RI/FS activities. Information can be found by going to [www.epaosc.net](http://www.epaosc.net) and selecting web sites, then Region 6 and then the Falcon Refinery Site.

## **5.0 CHANGES IN PERSONNEL DURING THE REPORTING PERIOD**

None during September.

## **6.0 LIST OF PROJECTED WORK FOR THE NEXT TWO MONTHS**

### **6.1 Removal Action Work Projected for the Next Two Months Includes:**

- Implement Removal Action Work Plan Addendum No.3;
- Dispose sludge at US Ecology and fiberglass insulation at BFI El Centro;

- Discharge of the rainwater that is in Tanks 26 and 7; and
- Continued site maintenance.

## **6.2 RI/FS Work Projected for the Next Two Months Includes:**

- Implementing the Phase II Field Sampling Plan, including:
  - Obtaining access agreements from land owners for offsite sampling locations; and
  - Contracting for drilling and analytical testing.

## **7.0 LABORATORY / MONITORING DATA**

Four sets of analytical results were contained to characterize the sludge, caustic waste and potential asbestos insulation. Results, which are provided in Appendix 2 indicated that there was no asbestos in the insulation that was around the tanks in addition to the chemical analytical results.

## **FIGURE**



N

0 200 400  
Feet

## ABOVE GROUND STORAGE TANK MAP

FALCON REFINERY  
INGELSIDE, SAN PATRICIO COUNTY, TEXAS

PROJECT NO.: 182978

DATE: 4/29/2011

 TRC

505 EAST HUNTLAND DRIVE  
SUITE 250  
AUSTIN, TEXAS 78752  
512-329-6080

FIGURE

1

Source: National Agriculture Imagery Program  
(NAIP) 2009 Aerial Photography.

## **TABLES**

**Table 1. Hazardous Liquid Waste Disposal**

<b>DISPOSAL FACILITY</b>	<b>ADDRESS</b>	<b>PHONE NO.</b>	<b>EPA ID NO.</b>	<b>CONTACT</b>
Texas Molecular Corpus Christi Services, LP	6901 Greenwood Dr. Corpus Christi, TX	361-852-8284	TXR000001016	Robert Rodriguez
<b>RQ, HAZARDOUS WASTE LIQUID N.O.S., 9 , UN3082, III (D007, D008, D018)</b>				
	<b>Month</b>	<b>Volume (gal)</b>		
	October-04	53,832		
	November-04	734,763		
	December-04	879,158		
	January-05	783,881		
	February-05	551,444		
	March-05	565,489		
	April-05	445,107		
	May-05	471,311		
	December-05	42,550		
	January-06	58,740		
	February-06	59,140		
	March-06	0		
	April-06	29,371		
	May-06	59,018		
	June-06	97,151		
	July-06	118,743		
	August-06	148,509		
	September-06	109,908		
	October-06	86,665		
	November-06	140,498		
	December-06	85,813		
	January-07	118,541		
	February-07	107,985		
	March-07	152,493		
	April-07	121,588		
	May-07	150,368		
	June-07	87,900		
	July-07	143,485		
	August-07	94,727		
	September-07	0		
	October-07	50,298		
	November-07	151,227		
	December-07	112,285		
	January-08	119,353		
	February-08	88,777		
	March-08	60,913		
	April-08	18,695		
	May-08	25,349		
	June-08	0		
	July-08	250,475		

	August-08	331,248		
	September-08	67,923		
	October-08	0		
	November-08	0		
	December-08	0		
	January-09	0		
	February-09	0		
	March-09	0		
	April-09	0		
	May-09	0		
	June-09	0		
	July-09	0		
	<b>Total</b>	<b>7,774,721</b>		

**Table 2. Metal Disposal**

DISPOSAL FACILITY	ADDRESS	PHONE NO.	EPA ID NO.	CONTACT
<b>Commercial Metal Company</b>	<b>4614 Agnes St Corpus Christi, TX</b>	<b>361-884-4071</b>	<b>None</b>	<b>David</b>
<b>RECYCLED METAL</b>				
	<b>Month</b>	<b>Volume (lbs)</b>		
	October-04	0		
	November-04	16,820		
	December-04	19,640		
	January-05	31,380		
	February-05	0		
	<b>Total</b>	<b>67,840</b>		
<b>FIRE EXTINGUISHERS</b>				
	<b>Month</b>	<b>Quantity</b>		
	December-04	10		
	<b>Total</b>	<b>10</b>		
	Industrial Fire & Safety Co. removed 10 fire extinguishers from the job site. The powder was disposed of properly and the metal went to salvage.			

**Table 3. Contaminated Soil and Oily Debris Disposal**

<b>DISPOSAL FACILITY</b>	<b>ADDRESS</b>	<b>PHONE NO.</b>	<b>EPA ID NO.</b>	<b>CONTACT</b>
<b>U.S. Ecology Texas L.P.</b>	P.O. Box 307 Robstown, TX	361-387-3518	TXD069452340	Glenda Felkner
<b>PETROLEUM CONTAMINATED SOIL AND OILY DEBRIS</b>				
	<b>Month</b>	<b>Volume (cy)</b>		
	October-04	0		
	November-04	0		
	December-04	40		
	January-05	0		
	February-05	0		
	<b>Total</b>	<b>40</b>		
<b>RQ, HAZARDOUS WASTE SOLID, N.O.S., LEAD, 9 NA3077, PGIII (OILY SLUDGE AND SOIL)</b>				
	<b>Month</b>	<b>Volume (cy)</b>		
	February-05	15		
	<b>Total</b>	<b>15</b>		

**Table 4. Oil and Filter Disposal**

<b>DISPOSAL FACILITY</b>	<b>ADDRESS</b>	<b>PHONE NO.</b>	<b>EPA ID NO.</b>	<b>CONTACT</b>
<b>Texas Molecular Corpus Christi Services, LP</b>	6901 Greenwood Dr Corpus Christi, TX	361-852-8284	TXR000001016	Robert Rodriguez
<b>RECYLCED OIL AND FILTERS</b>				
	<b>Month</b>	<b>Volume (gal)</b>		
	January-05	403		
	February-05	0		
	<b>Total</b>	<b>403</b>		
<b>DISPOSAL FACILITY</b>	<b>ADDRESS</b>	<b>PHONE NO.</b>	<b>EPA ID NO.</b>	<b>CONTACT</b>
<b>Midstate Environmental Services, LLC</b>	2203 Tower Road Robstown, TX	361-387-2171	TXR000051227	Lloyd Cooke
<b>RECYLCED OIL AND FILTERS</b>				
	<b>Month</b>	<b>Volume (gal)</b>		
	January-05	16,651		
	February-05	0		
	<b>Total</b>	<b>16,651</b>		

## **APPENDIX 1**

### **U.S. Ecology Waste Manifest**

W09738  
Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

7/28/2011  
Form Approved. OMB No. 2050-0039

1. UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number TXD086278058	2. Page 1 of 1	3. Emergency Response Phone (361) 643-4378	4. Manifest Tracking Number <b>008782923 JJK</b>	
5. Generator's Name and Mailing Address NATIONAL OIL RECOVERY CORP. 5718 WESTHEIMER, SUITE 700 HOUSTON Generator's Phone: (512) 563-5666,		TX 77057		Generator's Site Address (if different than mailing address) NATIONAL OIL RECOVERY CORP. 1472 FM 2725 INGLESIDE TX 78352		
6. Transporter 1 Company Name <b>ROYWELL SERVICES</b>				U.S. EPA ID Number <b>TXR000079231</b>		
7. Transporter 2 Company Name				U.S. EPA ID Number		
8. Designated Facility Name and Site Address US ECOLOGY, TEXAS, INC. 3277 COUNTY ROAD 69 ROBSTOWN Facility's Phone: (800) 242-3209		TX 78380		U.S. EPA ID Number <b>TXD069452340</b>		
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) <b>UN2920, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S., 8, III</b>	10. Containers No. Type <b>1 VFB TT</b>	11. Total Quantity <b>425000</b>	12. Unit Wt/Vol <b>P</b>	
	1.					
	2.					
	3.					
	4.					
14. Special Handling Instructions and Additional Information w/s 090073952 Caustic Tank Bottoms.						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator/Offeror's Printed/Typed Name <b>National Oil Recovery Corp. (NORCO)</b>		Signature	Month	Day	Year	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit:				
Transporter signature (for exports only): <b>Jose H. Rodriguez</b>						
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name <b>Jose H. Rodriguez</b> Signature      Month <b>10</b> Day <b>31</b> Year <b>2011</b>						
Transporter 2 Printed/Typed Name <b>Jose H. Rodriguez</b> Signature      Month <b>10</b> Day <b>31</b> Year <b>2011</b>						
TRANSPORTER INT'L	18. Discrepancy					
	18a. Discrepancy Indication Space <b>Our weight is 32,860 pounds, 04 per Tons</b> <input checked="" type="checkbox"/> Quantities <input type="checkbox"/> The <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
	Manifest Reference Number: <b>ECOLOGY VIBRILLITY</b>					
	18b. Alternate Facility (or Generator)					
Facility's Phone:						
18c. Signature of Alternate Facility (or Generator)						
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1. <b>Hull</b>		2.	3.	4.		
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a						
Printed/Typed Name <b>Dale Rock</b>		Signature	Month	Day	Year	
DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)						

**Scale Ticket**

Phone: 800 242 3209

**US ECOLOGY TEXAS, INC.**  
ROBSTOWN, TX

Scale Ticket #: 130657

Work Order #: 11103109738

Checkin Date: 10/31/2011 Time: 15:33

Checkout Date: 10/31/2011 Time: 17:56

008782923JK

**Transporter:**

ROYWELL SERVICES  
2855 COUNTY ROAD 3265  
TAFT, TX

EPA ID: TXR000079231

**Customer**

NATIONAL OIL RECOVERY CORPORATION  
5151 SAN FELIPE, SUITE 1950  
HOUSTON, TX

Truck #: 210

Tractor #:

Trailer #:

Driver: JOSE RODRIGUEZ

**GROSS WEIGHT :** 75,160.00 LBs

**TARE WEIGHT :** 42,300.00 LBs

**NET WEIGHT :** 32,860.00 LBs

W0 9763

TW 24840

Form Approved. OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)				
GENERATOR	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	
	UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number #TCB278058	2. Page 1 of 3	(381) 643-4378
	5. Generator Name and Address	6. Destination Site Address (if different than generator address)		
	NATIONAL OIL RECOVERY CORP. 5718 WESTHEIMER, SUITE 700 HOUSTON (512) 563-6666	NATIONAL OIL RECOVERY CORP. 1472 FM 2725 INGLESIDE		
	Generator's Phone:	TX 77057 TX 76362		
	6. Transporter 1 Company Name	U.S. EPA ID Number TXR000079231		
	ROYWELL SERVICES			
	7. Transporter 2 Company Name	U.S. EPA ID Number		
	8. Destination Facility Name and Site Address	U.S. EPA ID Number		
	US ECOLOGY, TEXAS, INC. 3277 COUNTY ROAD 69 ROBSTOWN (600) 242-3209	TX 76380 TXD089452340		
	Facility's Phone:			
	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers	11. Total Quantity
		1. UN2920, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S., 8; III	No. Type 1 VB TT	34 000 lbs
		2.		
		3.		
		4.		
	14. Special Handling Instructions and Additional Information	v/v/s 080073802 Caustic Tank Bottoms		
	15. GENERATOR/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.			
Generator/Offeror's Printed/Typed Name		Signature		
National Oil Recovery Corp (Norco)		Vince S. Lenardo, Agent for Norco		
Month Day Year		31 2011		
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.				
Transporter signature (for exports only): _____ Date leaving U.S.: _____				
TRANSPORTER INT'L	17. Transporter Acknowledgment of Receipt of Materials			
	Transporter 1 Printed/Typed Name		Signature	
	SCOTT LANARY		Signature	
Transporter 2 Printed/Typed Name				
Signature				
Month Day Year				
Month Day Year				
18. Discrepancy				
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input checked="" type="checkbox"/> Full Rejection				
Our weight is 24,000 pounds, ok per Alonso Arredondo at National Oil Recovery, Virtually				
Manifest Reference Number:				
U.S. EPA ID Number				
Facility's Phone:				
18c. Signature of Alternate Facility (or Generator)				
Month Day Year				
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)				
1. <u>H039</u> 2. <u></u> 3. <u></u> 4. <u></u>				
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a				
Printed/Typed Name <u>Dale Roden</u> Signature <u>Dale</u> Month Day Year <u>VI 01 11</u>				

**Scale Ticket**

Phone: 800 242 3209

**US ECOLOGY TEXAS, INC.**  
ROBSTOWN, TX

Scale Ticket #: 130679

Work Order #: 11110109763

Checkin Date: 11/01/2011 Time: 11:04

Checkout Date: 11/01/2011 Time: 01:27

008782924JK

**Transporter:**

ROYWELL SERVICES  
2855 COUNTY ROAD 3265  
TAFT, TX

EPA ID: TXR000079231

**Customer**

NATIONAL OIL RECOVERY CORPORATION  
5151 SAN FELIPE, SUITE 1950  
HOUSTON, TX

Truck #: 210

Tractor #:

Trailer #:

Driver: SCOTT KANARY

**GROSS WEIGHT :** 72,600.00 LBs

**TARE WEIGHT :** 47,700.00 LBs

**NET WEIGHT :** 24,900.00 LBs

## **APPENDIX 2**

### **Analytical Data**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Corpus Christi  
1733 N. Padre Island Drive  
Corpus Christi, TX 78408  
Tel: (361)289-2673

TestAmerica Job ID: 560-28289-1

Client Project/Site: Falcon Refinery Superfund Site

For:

TRC Solutions, Inc.  
10011 Meadowglen  
Suite 100  
Houston, Texas 77042

Attn: Mr. Alonzo Arredondo

*Erica Padilla*

---

Authorized for release by:  
09/29/2011 03:32:10 PM

Erica Padilla  
Project Manager I  
[erica.padilla@testamericainc.com](mailto:erica.padilla@testamericainc.com)

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Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

## Definitions/Glossary

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
X	Surrogate is outside control limits
F	MS or MSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

#### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

#### Abbreviation

**These commonly used abbreviations may or may not be present in this report.**

⊗	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Case Narrative

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

### Job ID: 560-28289-1

#### Laboratory: TestAmerica Corpus Christi

##### Narrative

##### Job Narrative 560-28289-1

##### Comments

No additional comments.

##### Receipt

All samples were received in good condition within temperature requirements.

##### GC/MS VOA

Method 8260B: The matrix spike (MS) recovery for ethylbenzene was outside control limits in batch 64525. The associated laboratory control sample (LCS) recovery met acceptance criteria. Therefore, data are reported.

Method 8260B: Benzene was detected in the method blank (MB) analyzed in batch 64525. However, the concentration detected was less than 1/2 the reporting limit (RL). Therefore, data are reported.

Method 8260B: Internal standard responses and surrogate recoveries were outside of acceptance limits for the following sample: 560-28289-1, 1MS, 1MSD. Re-analysis was performed with concurring results. The sample shows evidence of matrix interference and the associated laboratory control sample (LCS) recovery met acceptance criteria. Therefore, data are reported.

Method 8260B: Surrogate recovery for the following sample was outside control limits: 560-28289-2. Re-analysis was performed with concurring results. The associated laboratory control sample (LCS) recovery met acceptance criteria. Therefore, data are reported.

No other analytical or quality issues were noted.

##### GC/MS Semi VOA

Method 8270C: The following samples were diluted due to the nature of the sample matrix: 560-28289-1 and -2. Elevated reporting limits (RLs) are provided.

Method 8270C: Surrogate recovery for the following sample was outside control limits: 560-28289-2. Evidence of matrix interference is present and the associated laboratory control sample (LCS) recovery met acceptance criteria. Therefore, data are reported.

No other analytical or quality issues were noted.

##### Metals

No analytical or quality issues were noted.

##### General Chemistry

No analytical or quality issues were noted.

##### Organic Prep

Method 3550B: Due to the nature of the sample matrix, the initial volume used for the preparation of sample 560-28289-2 deviated from the standard procedure. An initial amount of 10g was used versus the normal 30g. Subsequently, the sample could not be concentrated down to the method required 1mL volume. The final volume of the sample extract was 6 mL. The reporting limits (RLs) have been adjusted proportionately.

No other analytical or quality issues were noted.

# Detection Summary

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

**Client Sample ID: Tanks 18, 19, & 22**

**Lab Sample ID: 560-28289-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.047	B	0.037	0.0017	mg/Kg	1	⊗	8260B	Total/NA
Ethylbenzene	0.63		0.037	0.0016	mg/Kg	1	⊗	8260B	Total/NA
Toluene	0.18		0.037	0.0041	mg/Kg	1	⊗	8260B	Total/NA
Xylenes, Total	0.43		0.11	0.0026	mg/Kg	1	⊗	8260B	Total/NA
Phenol	4.5	J	5.2	0.26	mg/Kg	10	⊗	8270C	Total/NA
3 & 4 Methylphenol	1.2	J	10	0.78	mg/Kg	10	⊗	8270C	Total/NA
Naphthalene	1.3	J	5.2	0.65	mg/Kg	10	⊗	8270C	Total/NA
Acenaphthylene	0.38	J	5.2	0.26	mg/Kg	10	⊗	8270C	Total/NA
Phenanthrene	0.33	J	5.2	0.26	mg/Kg	10	⊗	8270C	Total/NA
Fluoranthene	1.4	J	5.2	0.26	mg/Kg	10	⊗	8270C	Total/NA
Pyrene	12		5.2	0.26	mg/Kg	10	⊗	8270C	Total/NA
Benzo[a]anthracene	6.6		5.2	0.26	mg/Kg	10	⊗	8270C	Total/NA
Chrysene	15		5.2	0.26	mg/Kg	10	⊗	8270C	Total/NA
Benzo[b]fluoranthene	3.1	J	5.2	0.26	mg/Kg	10	⊗	8270C	Total/NA
Benzo[k]fluoranthene	0.63	J	5.2	0.26	mg/Kg	10	⊗	8270C	Total/NA
Benzo[a]pyrene	5.9		5.2	0.26	mg/Kg	10	⊗	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	0.86	J	5.2	0.26	mg/Kg	10	⊗	8270C	Total/NA
Dibenz(a,h)anthracene	1.1	J	5.2	0.26	mg/Kg	10	⊗	8270C	Total/NA
Benzo[g,h,i]perylene	2.6	J	5.2	0.26	mg/Kg	10	⊗	8270C	Total/NA
Arsenic	11		2.5	0.18	mg/Kg	1	⊗	6010B	Total/NA
Barium	52		1.2	0.24	mg/Kg	1	⊗	6010B	Total/NA
Cadmium	1.9		0.62	0.045	mg/Kg	1	⊗	6010B	Total/NA
Chromium	66		1.2	0.17	mg/Kg	1	⊗	6010B	Total/NA
Lead	520		0.62	0.19	mg/Kg	1	⊗	6010B	Total/NA
Mercury	0.19		0.14	0.013	mg/Kg	1	⊗	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	5.97		0.100	0.100	SU	1		9045D	Total/NA
Flashpoint	>212			1.0	Degrees F	1		D92	Total/NA

**Client Sample ID: Tanks 17, 21, 23, & 24**

**Lab Sample ID: 560-28289-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7.2		0.86	0.17	mg/Kg	200	⊗	8260B	Total/NA
Ethylbenzene	95		0.86	0.086	mg/Kg	200	⊗	8260B	Total/NA
Toluene	17		0.86	0.086	mg/Kg	200	⊗	8260B	Total/NA
Xylenes, Total	77		2.6	0.086	mg/Kg	200	⊗	8260B	Total/NA
Naphthalene	600		150	18	mg/Kg	10	⊗	8270C	Total/NA
2-Methylnaphthalene	750		150	14	mg/Kg	10	⊗	8270C	Total/NA
Acenaphthene	68	J	150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Dibenzofuran	46	J	150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Fluorene	310		150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Phenanthrene	660		150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Anthracene	110	J	150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Fluoranthene	89	J	150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Pyrene	320		150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Benzo[a]anthracene	170		150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Chrysene	310		150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Bis(2-ethylhexyl) phthalate	24	J	150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Benzo[b]fluoranthene	52	J	150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Benzo[k]fluoranthene	14	J	150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Benzo[a]pyrene	96	J	150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	14	J	150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Dibenz(a,h)anthracene	22	J	150	7.3	mg/Kg	10	⊗	8270C	Total/NA

# Detection Summary

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

**Client Sample ID: Tanks 17, 21, 23, & 24 (Continued)**

**Lab Sample ID: 560-28289-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	38	J	150	7.3	mg/Kg	10	⊗	8270C	Total/NA
Arsenic	7.8		3.9	0.28	mg/Kg	1	⊗	6010B	Total/NA
Barium	380		1.9	0.37	mg/Kg	1	⊗	6010B	Total/NA
Cadmium	3.1		0.97	0.070	mg/Kg	1	⊗	6010B	Total/NA
Chromium	37		1.9	0.26	mg/Kg	1	⊗	6010B	Total/NA
Lead	270		0.97	0.30	mg/Kg	1	⊗	6010B	Total/NA
Selenium	0.82	J	1.9	0.38	mg/Kg	1	⊗	6010B	Total/NA
Silver	1.7		0.97	0.21	mg/Kg	1	⊗	6010B	Total/NA
Mercury	1.4		0.59	0.053	mg/Kg	2	⊗	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfide, Reactive	50		50	50	mg/Kg	1		9034	Total/NA
pH	7.39		0.100	0.100	SU	1		9045D	Total/NA
Flashpoint	>212			1.0	Degrees F	1		D92	Total/NA

# Client Sample Results

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

**Client Sample ID: Tanks 18, 19, & 22**

**Lab Sample ID: 560-28289-1**

Date Collected: 09/22/11 10:15

Matrix: Solid

Date Received: 09/22/11 17:00

Percent Solids: 62.4

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.047	B	0.037	0.0017	mg/Kg	⊗		09/27/11 13:54	1
Ethylbenzene	0.63		0.037	0.0016	mg/Kg	⊗		09/27/11 13:54	1
Toluene	0.18		0.037	0.0041	mg/Kg	⊗		09/27/11 13:54	1
Xylenes, Total	0.43		0.11	0.0026	mg/Kg	⊗		09/27/11 13:54	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Toluene-d8 (Surr)	111		69 - 139					09/27/11 13:54	1
4-Bromofluorobenzene (Surr)	82		61 - 130					09/27/11 13:54	1
Dibromofluoromethane (Surr)	144	X	63 - 136					09/27/11 13:54	1
1,2-Dichloroethane-d4 (Surr)	131		70 - 152					09/27/11 13:54	1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Phenol</b>	<b>4.5</b>	<b>J</b>	5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Bis(2-chloroethyl)ether	<0.58		5.2	0.58	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
2-Chlorophenol	<0.43		5.2	0.43	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
1,3-Dichlorobenzene	<0.68		5.2	0.68	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
1,4-Dichlorobenzene	<0.72		5.2	0.72	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Benzyl alcohol	<0.38		5.2	0.38	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
1,2-Dichlorobenzene	<0.81		5.2	0.81	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
2-Methylphenol	<0.52		5.2	0.52	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>3 &amp; 4 Methylphenol</b>	<b>1.2</b>	<b>J</b>	10	0.78	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
N-Nitrosodi-n-propylamine	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Hexachloroethane	<0.78		5.2	0.78	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Nitrobenzene	<0.57		5.2	0.57	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Isophorone	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
2-Nitrophenol	<0.27		5.2	0.27	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
2,4-Dimethylphenol	<0.32		5.2	0.32	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Bis(2-chloroethoxy)methane	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
2,4-Dichlorophenol	<0.36		5.2	0.36	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
1,2,4-Trichlorobenzene	<0.71		5.2	0.71	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Naphthalene</b>	<b>1.3</b>	<b>J</b>	5.2	0.65	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
4-Chloroaniline	<0.73		5.2	0.73	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Hexachlorobutadiene	<0.70		5.2	0.70	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
4-Chloro-3-methylphenol	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
2-Methylnaphthalene	<0.49		5.2	0.49	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Hexachlorocyclopentadiene	<1.6		5.2	1.6	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
2,4,6-Trichlorophenol	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
2,4,5-Trichlorophenol	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
2-Chloronaphthalene	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
2-Nitroaniline	<0.35		5.2	0.35	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Dimethyl phthalate	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Acenaphthylene</b>	<b>0.38</b>	<b>J</b>	5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
2,6-Dinitrotoluene	<0.78		5.2	0.78	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
3-Nitroaniline	<0.78		5.2	0.78	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Acenaphthene	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
2,4-Dinitrophenol	<1.6		5.2	1.6	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
4-Nitrophenol	<0.48		5.2	0.48	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Dibenzofuran	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
2,4-Dinitrotoluene	<0.33		5.2	0.33	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10

# Client Sample Results

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

## Client Sample ID: Tanks 18, 19, & 22

**Lab Sample ID: 560-28289-1**

Matrix: Solid

Percent Solids: 62.4

### Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diethyl phthalate	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Fluorene	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
4-Chlorophenyl phenyl ether	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
4-Nitroaniline	<0.44		5.2	0.44	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
4,6-Dinitro-2-methylphenol	<0.78		5.2	0.78	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
N-Nitrosodiphenylamine	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
4-Bromophenyl phenyl ether	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Hexachlorobenzene	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Phenanthrene</b>	<b>0.33 J</b>		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Anthracene	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Di-n-butyl phthalate	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Fluoranthene</b>	<b>1.4 J</b>		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Pyrene</b>	<b>12</b>		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Butyl benzyl phthalate	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Benzo[a]anthracene</b>	<b>6.6</b>		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Chrysene</b>	<b>15</b>		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Bis(2-ethylhexyl) phthalate	<0.26		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Di-n-octyl phthalate	<0.29		5.2	0.29	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Benzo[b]fluoranthene</b>	<b>3.1 J</b>		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Benzo[k]fluoranthene</b>	<b>0.63 J</b>		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Benzo[a]pyrene</b>	<b>5.9</b>		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.86 J</b>		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Dibenz(a,h)anthracene</b>	<b>1.1 J</b>		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Benzo[g,h,i]perylene</b>	<b>2.6 J</b>		5.2	0.26	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
3,3'-Dichlorobenzidine	<0.78		5.2	0.78	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
Pentachlorophenol	<1.6		5.2	1.6	mg/Kg	⊗	09/23/11 12:39	09/26/11 23:56	10
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorophenol	77		48 - 130				09/23/11 12:39	09/26/11 23:56	10
Phenol-d5	82		56 - 130				09/23/11 12:39	09/26/11 23:56	10
Nitrobenzene-d5	97		48 - 130				09/23/11 12:39	09/26/11 23:56	10
2-Fluorobiphenyl	87		57 - 130				09/23/11 12:39	09/26/11 23:56	10
2,4,6-Tribromophenol	95		30 - 131				09/23/11 12:39	09/26/11 23:56	10
Terphenyl-d14	116		58 - 130				09/23/11 12:39	09/26/11 23:56	10

### Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>11</b>		2.5	0.18	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:46	1
<b>Barium</b>	<b>52</b>		1.2	0.24	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:46	1
<b>Cadmium</b>	<b>1.9</b>		0.62	0.045	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:46	1
<b>Chromium</b>	<b>66</b>		1.2	0.17	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:46	1
<b>Lead</b>	<b>520</b>		0.62	0.19	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:46	1
Selenium	<0.25		1.2	0.25	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:46	1
Silver	<0.14		0.62	0.14	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:46	1

### Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.19</b>		0.14	0.013	mg/Kg	⊗	09/23/11 08:00	09/23/11 15:25	1

# Client Sample Results

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

**Client Sample ID: Tanks 18, 19, & 22**

**Lab Sample ID: 560-28289-1**

**Matrix: Solid**

Date Collected: 09/22/11 10:15

Date Received: 09/22/11 17:00

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	<0.086		0.25	0.086	mg/Kg		09/27/11 17:15	09/28/11 15:31	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	<50		50	50	mg/Kg		09/28/11 08:25	09/28/11 08:25	1
pH	5.97		0.100	0.100	SU			09/23/11 16:10	1
Flashpoint	>212		1.0	1.0	Degrees F			09/27/11 17:30	1

**Client Sample ID: Tanks 17, 21, 23, & 24**

**Lab Sample ID: 560-28289-2**

**Matrix: Solid**

Date Collected: 09/22/11 10:25

Date Received: 09/22/11 17:00

**Percent Solids: 40.7**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	7.2		0.86	0.17	mg/Kg	☀	09/28/11 08:36	09/28/11 16:03	200
Ethylbenzene	95		0.86	0.086	mg/Kg	☀	09/28/11 08:36	09/28/11 16:03	200
Toluene	17		0.86	0.086	mg/Kg	☀	09/28/11 08:36	09/28/11 16:03	200
Xylenes, Total	77		2.6	0.086	mg/Kg	☀	09/28/11 08:36	09/28/11 16:03	200
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	59	X	60 - 130				09/28/11 08:36	09/28/11 16:03	200
4-Bromofluorobenzene (Surr)	54		37 - 138				09/28/11 08:36	09/28/11 16:03	200
Dibromofluoromethane (Surr)	66	X	70 - 130				09/28/11 08:36	09/28/11 16:03	200
1,2-Dichloroethane-d4 (Surr)	69	X	70 - 130				09/28/11 08:36	09/28/11 16:03	200

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<7.3		150	7.3	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
Bis(2-chloroethyl)ether	<16		150	16	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
2-Chlorophenol	<12		150	12	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
1,3-Dichlorobenzene	<19		150	19	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
1,4-Dichlorobenzene	<20		150	20	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
Benzyl alcohol	<11		150	11	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
1,2-Dichlorobenzene	<23		150	23	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
2-Methylphenol	<15		150	15	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
3 & 4 Methylphenol	<22		290	22	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
N-Nitrosodi-n-propylamine	<7.3		150	7.3	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
Hexachloroethane	<22		150	22	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
Nitrobenzene	<16		150	16	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
Isophorone	<7.3		150	7.3	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
2-Nitrophenol	<7.5		150	7.5	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
2,4-Dimethylphenol	<9.0		150	9.0	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
Bis(2-chloroethoxy)methane	<7.3		150	7.3	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
2,4-Dichlorophenol	<10		150	10	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
1,2,4-Trichlorobenzene	<20		150	20	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
<b>Naphthalene</b>	<b>600</b>		150	18	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
4-Chloroaniline	<20		150	20	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
Hexachlorobutadiene	<20		150	20	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
4-Chloro-3-methylphenol	<7.3		150	7.3	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
<b>2-Methylnaphthalene</b>	<b>750</b>		150	14	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
Hexachlorocyclopentadiene	<44		150	44	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10
2,4,6-Trichlorophenol	<7.3		150	7.3	mg/Kg	☀	09/23/11 12:39	09/27/11 00:24	10

# Client Sample Results

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

**Client Sample ID: Tanks 17, 21, 23, & 24**

**Lab Sample ID: 560-28289-2**

Matrix: Solid

Percent Solids: 40.7

**Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<7.3		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
2-Chloronaphthalene	<7.3		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
2-Nitroaniline	<9.8		150	9.8	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
Dimethyl phthalate	<7.3		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
Acenaphthylene	<7.3		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
2,6-Dinitrotoluene	<22		150	22	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
3-Nitroaniline	<22		150	22	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Acenaphthene</b>	<b>68 J</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
2,4-Dinitrophenol	<44		150	44	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
4-Nitrophenol	<13		150	13	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Dibenzofuran</b>	<b>46 J</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
2,4-Dinitrotoluene	<9.3		150	9.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
Diethyl phthalate	<7.3		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Fluorene</b>	<b>310</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
4-Chlorophenyl phenyl ether	<7.3		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
4-Nitroaniline	<12		150	12	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
4,6-Dinitro-2-methylphenol	<22		150	22	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
N-Nitrosodiphenylamine	<7.3		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
4-Bromophenyl phenyl ether	<7.3		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
Hexachlorobenzene	<7.3		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Phenanthrene</b>	<b>660</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Anthracene</b>	<b>110 J</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
Di-n-butyl phthalate	<7.3		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Fluoranthene</b>	<b>89 J</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Pyrene</b>	<b>320</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
Butyl benzyl phthalate	<7.3		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Benzo[a]anthracene</b>	<b>170</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Chrysene</b>	<b>310</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Bis(2-ethylhexyl) phthalate</b>	<b>24 J</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
Di-n-octyl phthalate	<8.2		150	8.2	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Benzo[b]fluoranthene</b>	<b>52 J</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Benzo[k]fluoranthene</b>	<b>14 J</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Benzo[a]pyrene</b>	<b>96 J</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
Indeno[1,2,3-cd]pyrene	<b>14 J</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Dibenz(a,h)anthracene</b>	<b>22 J</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
<b>Benzo[g,h,i]perylene</b>	<b>38 J</b>		150	7.3	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
3,3'-Dichlorobenzidine	<22		150	22	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10
Pentachlorophenol	<44		150	44	mg/Kg	⊗	09/23/11 12:39	09/27/11 00:24	10

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	92		48 - 130	09/23/11 12:39	09/27/11 00:24	10
Phenol-d5	126		56 - 130	09/23/11 12:39	09/27/11 00:24	10
Nitrobenzene-d5	175 X		48 - 130	09/23/11 12:39	09/27/11 00:24	10
2-Fluorobiphenyl	96		57 - 130	09/23/11 12:39	09/27/11 00:24	10
2,4,6-Tribromophenol	97		30 - 131	09/23/11 12:39	09/27/11 00:24	10
Terphenyl-d14	315 X		58 - 130	09/23/11 12:39	09/27/11 00:24	10

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>7.8</b>		3.9	0.28	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:48	1
<b>Barium</b>	<b>380</b>		1.9	0.37	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:48	1

# Client Sample Results

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

**Client Sample ID: Tanks 17, 21, 23, & 24**

**Lab Sample ID: 560-28289-2**

Matrix: Solid

Percent Solids: 40.7

**Method: 6010B - Metals (ICP) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	3.1		0.97	0.070	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:48	1
Chromium	37		1.9	0.26	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:48	1
Lead	270		0.97	0.30	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:48	1
Selenium	0.82 J		1.9	0.38	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:48	1
Silver	1.7		0.97	0.21	mg/Kg	⊗	09/23/11 09:30	09/23/11 13:48	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.4		0.59	0.053	mg/Kg	⊗	09/23/11 08:00	09/23/11 15:42	2

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	<0.086		0.25	0.086	mg/Kg	—	09/27/11 17:15	09/28/11 15:31	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	50		50	50	mg/Kg	—	09/28/11 08:25	09/28/11 08:25	1
pH	7.39		0.100	0.100	SU			09/23/11 16:10	1
Flashpoint	>212		1.0	1.0	Degrees F			09/27/11 17:30	1

# QC Sample Results

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID:** MB 560-64525/6

**Matrix:** Solid

**Analysis Batch:** 64525

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	0.000264	J	0.0050	0.00023	mg/Kg			09/27/11 11:42	1
Ethylbenzene	<0.00022		0.0050	0.00022	mg/Kg			09/27/11 11:42	1
Toluene	<0.00056		0.0050	0.00056	mg/Kg			09/27/11 11:42	1
Xylenes, Total	<0.00036		0.015	0.00036	mg/Kg			09/27/11 11:42	1
Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac			
	% Recovery	Qualifier							
Toluene-d8 (Surr)	116		69 - 139					09/27/11 11:42	1
4-Bromofluorobenzene (Surr)	106		61 - 130					09/27/11 11:42	1
Dibromofluoromethane (Surr)	111		63 - 136					09/27/11 11:42	1
1,2-Dichloroethane-d4 (Surr)	116		70 - 152					09/27/11 11:42	1

**Lab Sample ID:** LCS 560-64525/3

**Matrix:** Solid

**Analysis Batch:** 64525

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

Analyte	LCS		Unit	D	% Rec	Limits	% Rec.
	Added	Result					
Benzene	0.0500	0.0519	mg/Kg		104	70 - 130	
Ethylbenzene	0.0500	0.0526	mg/Kg		105	70 - 130	
Toluene	0.0500	0.0505	mg/Kg		101	70 - 130	
Xylenes, Total	0.150	0.158	mg/Kg		106	70 - 130	
Surrogate	LCS		Unit	D	% Rec	Limits	% Rec.
	% Recovery	Qualifier					
Toluene-d8 (Surr)	116		69 - 139				
4-Bromofluorobenzene (Surr)	107		61 - 130				
Dibromofluoromethane (Surr)	116		63 - 136				
1,2-Dichloroethane-d4 (Surr)	113		70 - 152				

**Lab Sample ID:** 560-28289-1 MS

**Matrix:** Solid

**Analysis Batch:** 64525

**Client Sample ID:** Tanks 18, 19, & 22

**Prep Type:** Total/NA

Analyte	Sample	Sample	Spike	MS		Unit	D	% Rec	Limits	% Rec.
	Result	Qualifier	Added	Result	Qualifier					
Benzene	0.047	B	0.378	0.444		mg/Kg	⊗	105	56 - 132	
Ethylbenzene	0.63		0.378	1.37	F	mg/Kg	⊗	197	48 - 138	
Toluene	0.18		0.378	0.570		mg/Kg	⊗	103	48 - 135	
Xylenes, Total	0.43		1.13	1.76		mg/Kg	⊗	117	49 - 137	
Surrogate	MS		Unit	D	% Rec	Limits	% Rec.			
	% Recovery	Qualifier								
Toluene-d8 (Surr)	106		69 - 139							
4-Bromofluorobenzene (Surr)	88		61 - 130							
Dibromofluoromethane (Surr)	130		63 - 136							
1,2-Dichloroethane-d4 (Surr)	115		70 - 152							

**Lab Sample ID:** 560-28289-1 MSD

**Matrix:** Solid

**Analysis Batch:** 64525

**Client Sample ID:** Tanks 18, 19, & 22

**Prep Type:** Total/NA

Analyte	Sample	Sample	Spike	MSD		Unit	D	% Rec	Limits	RPD
	Result	Qualifier	Added	Result	Qualifier					
Benzene	0.047	B	0.371	0.436		mg/Kg	⊗	105	56 - 132	1.7

# QC Sample Results

Client: TRC Solutions, Inc.

TestAmerica Job ID: 560-28289-1

Project/Site: Falcon Refinery Superfund Site

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 560-28289-1 MSD**

**Matrix: Solid**

**Analysis Batch: 64525**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec.		RPD	Limit
	Result	Qualifier	Added	Result	Qualifier			% Rec	Limits		
Ethylbenzene	0.63		0.371	1.07		mg/Kg	⊗	119	48 - 138	24.7	30.0
Toluene	0.18		0.371	0.537		mg/Kg	⊗	96	48 - 135	5.9	30.0
Xylenes, Total	0.43		1.11	1.58		mg/Kg	⊗	104	49 - 137	10.3	30.0

**MSD MSD**

Surrogate	MSD	MSD	Limits
	% Recovery	Qualifier	
Toluene-d8 (Surr)	105		69 - 139
4-Bromofluorobenzene (Surr)	85		61 - 130
Dibromofluoromethane (Surr)	120		63 - 136
1,2-Dichloroethane-d4 (Surr)	112		70 - 152

**Lab Sample ID: MB 560-64575/1-A**

**Matrix: Solid**

**Analysis Batch: 64572**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed	
Benzene	<0.020		0.10	0.020	mg/Kg		09/28/11 08:36	09/28/11 11:33	50
Ethylbenzene	<0.010		0.10	0.010	mg/Kg		09/28/11 08:36	09/28/11 11:33	50
Toluene	<0.010		0.10	0.010	mg/Kg		09/28/11 08:36	09/28/11 11:33	50
Xylenes, Total	<0.010		0.30	0.010	mg/Kg		09/28/11 08:36	09/28/11 11:33	50

**MB MB**

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
Toluene-d8 (Surr)	108		60 - 130	09/28/11 08:36	09/28/11 11:33	50
4-Bromofluorobenzene (Surr)	102		37 - 138	09/28/11 08:36	09/28/11 11:33	50
Dibromofluoromethane (Surr)	96		70 - 130	09/28/11 08:36	09/28/11 11:33	50
1,2-Dichloroethane-d4 (Surr)	100		70 - 130	09/28/11 08:36	09/28/11 11:33	50

**Lab Sample ID: LCS 560-64575/2-A**

**Matrix: Solid**

**Analysis Batch: 64572**

Analyte	Spike	LCS	LCS	% Rec.	
	Added	Result	Qualifier	Unit	D
Benzene	2.50	2.45		mg/Kg	98
Ethylbenzene	2.50	2.46		mg/Kg	98
Toluene	2.50	2.60		mg/Kg	104
Xylenes, Total	7.50	7.34		mg/Kg	98

**LCS LCS**

Surrogate	LCS	LCS	Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
Toluene-d8 (Surr)	113		60 - 130	09/28/11 08:36	09/28/11 11:33	50
4-Bromofluorobenzene (Surr)	103		37 - 138	09/28/11 08:36	09/28/11 11:33	50
Dibromofluoromethane (Surr)	102		70 - 130	09/28/11 08:36	09/28/11 11:33	50
1,2-Dichloroethane-d4 (Surr)	98		70 - 130	09/28/11 08:36	09/28/11 11:33	50

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 64575**

# QC Sample Results

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 560-64450/1-A**

**Matrix: Solid**

**Analysis Batch: 64508**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 64450**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Bis(2-chloroethyl)ether	<0.038		0.33	0.038	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
2-Chlorophenol	<0.028		0.33	0.028	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
1,3-Dichlorobenzene	<0.044		0.33	0.044	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
1,4-Dichlorobenzene	<0.046		0.33	0.046	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Benzyl alcohol	<0.025		0.33	0.025	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
1,2-Dichlorobenzene	<0.053		0.33	0.053	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
2-Methylphenol	<0.033		0.33	0.033	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
3 & 4 Methylphenol	<0.051		0.68	0.051	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
N-Nitrosodi-n-propylamine	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Hexachloroethane	<0.051		0.33	0.051	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Nitrobenzene	<0.037		0.33	0.037	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Isophorone	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
2-Nitrophenol	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
2,4-Dimethylphenol	<0.021		0.33	0.021	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Bis(2-chloroethoxy)methane	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
2,4-Dichlorophenol	<0.023		0.33	0.023	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
1,2,4-Trichlorobenzene	<0.046		0.33	0.046	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Naphthalene	<0.042		0.33	0.042	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
4-Chloroaniline	<0.047		0.33	0.047	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Hexachlorobutadiene	<0.045		0.33	0.045	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
4-Chloro-3-methylphenol	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
2-Methylnaphthalene	<0.031		0.33	0.031	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Hexachlorocyclopentadiene	<0.10		0.33	0.10	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
2,4,6-Trichlorophenol	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
2,4,5-Trichlorophenol	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
2-Chloronaphthalene	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
2-Nitroaniline	<0.022		0.33	0.022	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Dimethyl phthalate	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Acenaphthylene	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
2,6-Dinitrotoluene	<0.051		0.33	0.051	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
3-Nitroaniline	<0.051		0.33	0.051	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Acenaphthene	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
2,4-Dinitrophenol	<0.10		0.33	0.10	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
4-Nitrophenol	<0.031		0.33	0.031	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Dibenzofuran	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
2,4-Dinitrotoluene	<0.021		0.33	0.021	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Diethyl phthalate	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Fluorene	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
4-Chlorophenyl phenyl ether	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
4-Nitroaniline	<0.028		0.33	0.028	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
4,6-Dinitro-2-methylphenol	<0.051		0.33	0.051	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
N-Nitrosodiphenylamine	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
4-Bromophenyl phenyl ether	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Hexachlorobenzene	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Phenanthrene	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Anthracene	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Di-n-butyl phthalate	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1
Fluoranthene	<0.017		0.33	0.017	mg/Kg	09/23/11 12:39	09/26/11 17:54		1

# QC Sample Results

Client: TRC Solutions, Inc.

TestAmerica Job ID: 560-28289-1

Project/Site: Falcon Refinery Superfund Site

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 560-64450/1-A**

**Matrix: Solid**

**Analysis Batch: 64508**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 64450**

**MB MB**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	<0.017		0.33	0.017	mg/Kg		09/23/11 12:39	09/26/11 17:54	1
Butyl benzyl phthalate	<0.017		0.33	0.017	mg/Kg		09/23/11 12:39	09/26/11 17:54	1
Benzo[a]anthracene	<0.017		0.33	0.017	mg/Kg		09/23/11 12:39	09/26/11 17:54	1
Chrysene	<0.017		0.33	0.017	mg/Kg		09/23/11 12:39	09/26/11 17:54	1
Bis(2-ethylhexyl) phthalate	<0.017		0.33	0.017	mg/Kg		09/23/11 12:39	09/26/11 17:54	1
Di-n-octyl phthalate	<0.019		0.33	0.019	mg/Kg		09/23/11 12:39	09/26/11 17:54	1
Benzo[b]fluoranthene	<0.017		0.33	0.017	mg/Kg		09/23/11 12:39	09/26/11 17:54	1
Benzo[k]fluoranthene	<0.017		0.33	0.017	mg/Kg		09/23/11 12:39	09/26/11 17:54	1
Benzo[a]pyrene	<0.017		0.33	0.017	mg/Kg		09/23/11 12:39	09/26/11 17:54	1
Indeno[1,2,3-cd]pyrene	<0.017		0.33	0.017	mg/Kg		09/23/11 12:39	09/26/11 17:54	1
Dibenz(a,h)anthracene	<0.017		0.33	0.017	mg/Kg		09/23/11 12:39	09/26/11 17:54	1
Benzo[g,h,i]perylene	<0.017		0.33	0.017	mg/Kg		09/23/11 12:39	09/26/11 17:54	1
3,3'-Dichlorobenzidine	<0.051		0.33	0.051	mg/Kg		09/23/11 12:39	09/26/11 17:54	1
Pentachlorophenol	<0.10		0.33	0.10	mg/Kg		09/23/11 12:39	09/26/11 17:54	1

**MB MB**

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	80		48 - 130	09/23/11 12:39	09/26/11 17:54	1
Phenol-d5	84		56 - 130	09/23/11 12:39	09/26/11 17:54	1
Nitrobenzene-d5	88		48 - 130	09/23/11 12:39	09/26/11 17:54	1
2-Fluorobiphenyl	87		57 - 130	09/23/11 12:39	09/26/11 17:54	1
2,4,6-Tribromophenol	92		30 - 131	09/23/11 12:39	09/26/11 17:54	1
Terphenyl-d14	107		58 - 130	09/23/11 12:39	09/26/11 17:54	1

**Lab Sample ID: LCS 560-64450/2-A**

**Matrix: Solid**

**Analysis Batch: 64508**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 64450**

Analyte	Spike Added	LCS LCS			% Rec.		
		Result	Qualifier	Unit	D	% Rec	Limits
Phenol	3.37	2.82		mg/Kg	84	67 - 130	
Bis(2-chloroethyl)ether	3.37	2.48		mg/Kg	74	61 - 130	
2-Chlorophenol	3.37	2.66		mg/Kg	79	64 - 130	
1,3-Dichlorobenzene	3.37	2.50		mg/Kg	74	60 - 130	
1,4-Dichlorobenzene	3.37	2.53		mg/Kg	75	62 - 130	
Benzyl alcohol	3.37	2.83		mg/Kg	84	64 - 130	
1,2-Dichlorobenzene	3.37	2.52		mg/Kg	75	59 - 130	
2-Methylphenol	3.37	2.84		mg/Kg	84	66 - 130	
3 & 4 Methylphenol	6.75	5.59		mg/Kg	83	63 - 130	
N-Nitrosodi-n-propylamine	3.37	2.68		mg/Kg	79	58 - 130	
Hexachloroethane	3.37	2.54		mg/Kg	75	59 - 130	
Nitrobenzene	3.37	2.68		mg/Kg	79	62 - 130	
Isophorone	3.37	2.76		mg/Kg	82	65 - 130	
2-Nitrophenol	3.37	2.72		mg/Kg	81	69 - 130	
2,4-Dimethylphenol	3.37	2.92		mg/Kg	87	70 - 130	
Bis(2-chloroethoxy)methane	3.37	2.74		mg/Kg	81	68 - 130	
2,4-Dichlorophenol	3.37	2.85		mg/Kg	85	70 - 130	
1,2,4-Trichlorobenzene	3.37	2.65		mg/Kg	78	66 - 130	
Naphthalene	3.37	2.66		mg/Kg	79	70 - 130	
4-Chloroaniline	3.37	2.12		mg/Kg	63	34 - 130	
Hexachlorobutadiene	3.37	2.61		mg/Kg	77	65 - 130	

# QC Sample Results

Client: TRC Solutions, Inc.

TestAmerica Job ID: 560-28289-1

Project/Site: Falcon Refinery Superfund Site

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 560-64450/2-A**

**Matrix: Solid**

**Analysis Batch: 64450**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 64450**

Analyte	Spike	LCS	LCS	Unit	D	% Rec	Limits	% Rec.
	Added	Result	Qualifier					
4-Chloro-3-methylphenol	3.37	2.95		mg/Kg	87	70 - 130		
2-Methylnaphthalene	3.37	2.84		mg/Kg	84	70 - 130		
Hexachlorocyclopentadiene	3.37	2.37		mg/Kg	70	43 - 130		
2,4,6-Trichlorophenol	3.37	3.01		mg/Kg	89	70 - 130		
2,4,5-Trichlorophenol	3.37	2.98		mg/Kg	88	70 - 130		
2-Chloronaphthalene	3.37	3.01		mg/Kg	89	69 - 130		
2-Nitroaniline	3.37	3.15		mg/Kg	93	65 - 142		
Dimethyl phthalate	3.37	3.12		mg/Kg	92	70 - 130		
Acenaphthylene	3.37	3.02		mg/Kg	90	70 - 130		
2,6-Dinitrotoluene	3.37	3.14		mg/Kg	93	70 - 130		
3-Nitroaniline	3.37	2.56		mg/Kg	76	44 - 130		
Acenaphthene	3.37	3.04		mg/Kg	90	70 - 130		
2,4-Dinitrophenol	3.37	2.47		mg/Kg	73	54 - 130		
4-Nitrophenol	3.37	2.88		mg/Kg	85	62 - 131		
Dibenzofuran	3.37	2.84		mg/Kg	84	70 - 130		
2,4-Dinitrotoluene	3.37	3.14		mg/Kg	93	70 - 130		
Diethyl phthalate	3.37	3.20		mg/Kg	95	70 - 130		
Fluorene	3.37	3.05		mg/Kg	90	70 - 130		
4-Chlorophenyl phenyl ether	3.37	3.04		mg/Kg	90	70 - 130		
4-Nitroaniline	3.37	2.87		mg/Kg	85	70 - 130		
4,6-Dinitro-2-methylphenol	3.37	2.86		mg/Kg	85	66 - 130		
N-Nitrosodiphenylamine	3.37	3.14		mg/Kg	93	70 - 130		
4-Bromophenyl phenyl ether	3.37	3.18		mg/Kg	94	70 - 130		
Hexachlorobenzene	3.37	3.10		mg/Kg	92	70 - 130		
Phenanthrene	3.37	3.10		mg/Kg	92	70 - 130		
Anthracene	3.37	3.09		mg/Kg	91	70 - 130		
Di-n-butyl phthalate	3.37	3.20		mg/Kg	95	70 - 130		
Fluoranthene	3.37	3.21		mg/Kg	95	70 - 130		
Pyrene	3.37	3.45		mg/Kg	102	70 - 130		
Butyl benzyl phthalate	3.37	3.37		mg/Kg	100	70 - 130		
Benzo[a]anthracene	3.37	3.24		mg/Kg	96	70 - 130		
Chrysene	3.37	3.07		mg/Kg	91	70 - 130		
Bis(2-ethylhexyl) phthalate	3.37	3.18		mg/Kg	94	70 - 130		
Di-n-octyl phthalate	3.37	3.16		mg/Kg	94	70 - 130		
Benzo[b]fluoranthene	3.37	3.79		mg/Kg	112	70 - 130		
Benzo[k]fluoranthene	3.37	3.20		mg/Kg	95	70 - 130		
Benzo[a]pyrene	3.37	3.15		mg/Kg	93	70 - 130		
Indeno[1,2,3-cd]pyrene	3.37	3.18		mg/Kg	94	70 - 130		
Dibenz(a,h)anthracene	3.37	3.14		mg/Kg	93	70 - 130		
Benzo[g,h,i]perylene	3.37	3.01		mg/Kg	89	70 - 130		
3,3'-Dichlorobenzidine	5.06	3.52		mg/Kg	69	41 - 130		
Pentachlorophenol	3.37	2.34		mg/Kg	69	51 - 130		

*LCS*   *LCS*

Surrogate	% Recovery	Qualifier	Limits
2-Fluorophenol	78		48 - 130
Phenol-d5	87		56 - 130
Nitrobenzene-d5	87		48 - 130
2-Fluorobiphenyl	93		57 - 130
2,4,6-Tribromophenol	99		30 - 131

# QC Sample Results

Client: TRC Solutions, Inc.

TestAmerica Job ID: 560-28289-1

Project/Site: Falcon Refinery Superfund Site

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 560-64450/2-A

Matrix: Solid

Analysis Batch: 64450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 64450

Surrogate	LCS	LCS	
	% Recovery	Qualifier	Limits
Terphenyl-d14	105		58 - 130

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 560-64426/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 64443

Prep Batch: 64426

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.15				2.0	0.15	mg/Kg		09/23/11 09:30	09/23/11 13:25	1
Barium	<0.19				1.0	0.19	mg/Kg		09/23/11 09:30	09/23/11 13:25	1
Cadmium	<0.036				0.50	0.036	mg/Kg		09/23/11 09:30	09/23/11 13:25	1
Chromium	<0.13				1.0	0.13	mg/Kg		09/23/11 09:30	09/23/11 13:25	1
Lead	<0.15				0.50	0.15	mg/Kg		09/23/11 09:30	09/23/11 13:25	1
Selenium	<0.20				1.0	0.20	mg/Kg		09/23/11 09:30	09/23/11 13:25	1
Silver	<0.11				0.50	0.11	mg/Kg		09/23/11 09:30	09/23/11 13:25	1

Lab Sample ID: LCS 560-64426/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 64443

Prep Batch: 64426

Analyte	Spike Added	LCS			LCS			% Rec.		
		Result	Qualifier	Unit	D	% Rec	Limits			
Arsenic	20.0	19.1		mg/Kg		96	80 - 120			
Barium	20.0	20.2		mg/Kg		101	80 - 120			
Cadmium	20.0	20.5		mg/Kg		103	80 - 120			
Chromium	20.0	20.6		mg/Kg		103	80 - 120			
Lead	20.0	21.2		mg/Kg		106	80 - 120			
Selenium	20.0	18.1		mg/Kg		91	80 - 120			
Silver	20.0	18.4		mg/Kg		92	80 - 120			

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 560-64459/4-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 64455

Prep Batch: 64459

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.018				0.20	0.018	mg/Kg		09/23/11 08:00	09/23/11 14:45	1

Lab Sample ID: LCS 560-64459/5-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 64455

Prep Batch: 64459

Analyte	Spike Added	LCS			LCS			% Rec.		
	Result	Qualifier	Unit	D	% Rec	Limits				
Mercury	0.417	0.435	mg/Kg		104	80 - 120				

# QC Sample Results

Client: TRC Solutions, Inc.

TestAmerica Job ID: 560-28289-1

Project/Site: Falcon Refinery Superfund Site

## Method: 9012 - Cyanide, Reactive

Lab Sample ID: MB 600-63201/1-A

Matrix: Solid

Analysis Batch: 63230

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 63201

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	<0.086				0.25	0.086	mg/Kg		09/27/11 17:15	09/28/11 15:31	1

Lab Sample ID: LCS 600-63201/2-A

Matrix: Solid

Analysis Batch: 63230

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 63201

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	% Rec	Limits	
	Added									
Cyanide, Reactive	1000			1.72		mg/Kg		0.2	0 - 100	

## Method: 9034 - Sulfide, Reactive

Lab Sample ID: MB 560-64587/1-A

Matrix: Solid

Analysis Batch: 64588

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 64587

Analyte	MB	MB	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	<50				50	50	mg/Kg		09/28/11 08:25	09/28/11 08:25	1

Lab Sample ID: LCS 560-64587/2-A

Matrix: Solid

Analysis Batch: 64588

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 64587

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	% Rec	Limits	
	Added									
Sulfide, Reactive	210			119		mg/Kg		57	28 - 140	

## Method: 9045D - pH

Lab Sample ID: LCS 560-64458/2

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 64458

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	% Rec	Limits	
	Added									
pH	4.99			5.010		SU		100	98 - 102	

Lab Sample ID: 560-28289-2 DU

Client Sample ID: Tanks 17, 21, 23, & 24

Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 64458

Analyte	Sample	Sample	DU	DU	Result	Qualifier	Unit	D	RPD	Limit
	Result	Qualifier								
pH	7.39				7.460		SU		0.9	20

## Method: D92 - Flashpoint

Lab Sample ID: MB 600-63158/1

Client Sample ID: Method Blank

Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 63158

Analyte	MB	MB	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>186				1.0	1.0	Degrees F		09/27/11 17:30		1

# QC Sample Results

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

## Method: D92 - Flashpoint (Continued)

Lab Sample ID: LCS 600-63158/2

Matrix: Solid

Analysis Batch: 63158

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Flashpoint	81.0	82.4		Degrees F	102	96.9 - 103.	1 09

## Certification Summary

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Corpus Christi	Kansas	NELAC	7	E-10362
TestAmerica Corpus Christi	Oklahoma	State Program	6	9968
TestAmerica Corpus Christi	Texas	NELAC	6	T104704210-11-5
TestAmerica Corpus Christi	USDA	USDA		P330-11-00060
TestAmerica Houston	Arkansas	State Program	6	88-0759
TestAmerica Houston	Louisiana	NELAC	6	30643
TestAmerica Houston	Oklahoma	State Program	6	9503
TestAmerica Houston	Texas	NELAC	6	T104704223-10-6-TX
TestAmerica Houston	USDA	USDA		P330-08-00217
TestAmerica Houston	Utah	NELAC	8	GULF

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

## Method Summary

Client: TRC Solutions, Inc.

TestAmerica Job ID: 560-28289-1

Project/Site: Falcon Refinery Superfund Site

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CC
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CC
6010B	Metals (ICP)	SW846	TAL CC
7471A	Mercury (CVAA)	SW846	TAL CC
9012	Cyanide, Reactive	SW846	TAL HOU
9034	Sulfide, Reactive	SW846	TAL CC
9045D	pH	SW846	TAL CC
D92	Flashpoint	ASTM	TAL HOU
Moisture	Percent Moisture	EPA	TAL CC

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL CC = TestAmerica Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

## Sample Summary

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery Superfund Site

TestAmerica Job ID: 560-28289-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
560-28289-1	Tanks 18, 19, & 22	Solid	09/22/11 10:15	09/22/11 17:00
560-28289-2	Tanks 17, 21, 23, & 24	Solid	09/22/11 10:25	09/22/11 17:00

**TestAmerica Corpus Christi**  
1733 N. Padre Island Drive  
Corpus Christi, TX 78408  
Phone (361) 289-2673 Fax (361) 289-2471

## Chain of Custody Record

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information</b>		Sample#:	Lab PM: Padilla, Erica		Carrier Tracking No(s): N/A - Hand Deliver	COC No: 560-4359-496.1
Client Contact:	Mr. Alonso Arredondo	Phone:	Erica, padilla@testamericainc.com		Page:	Loc: 560
Company:	TRC Solutions, Inc.	Job #:			Page of 1	28289
Address:	10011 Meadowglen Suite 100 Houston State, Zip: TX, 77042	Due Date Requested: TAT Requested (days):	Analysis Requested		Preservation Codes:	
Phone:					A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	M - Hexane N - None O - Na2O2 P - Na2O4S Q - Na2SCo3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)
Email:	alonzo@arredondo@gmail.com	PO#:			Total Number of Contaminants:	
Project Name:	(512) 99-9931	WO #:			Special Instructions/Note:	
Site:	Falcon Refinery Superfund Site	Project #:				
	SSOW#:	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, S=solid, Oil/waste/oil, G=tissue, A=air)	Preservation Code
	N/A			Solid		
	Tanks 18, 19 & 22	9/22/2011 10:15AM	C	Solid		
	TANKS 17, 21, 23 & 24	9/22/2011 10:25AM	C O	✓ ✓	✓ ✓	
<b>Possible Hazard /Identification</b>		<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>				
<input type="checkbox"/> Non-Hazard		<input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:				
Empty Kit Relinquished by:	Date/Time:		Date:	Time:	Method of Shipment:	
Relinquished by:	Date/Time:		Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:		Company	Received by:	Date/Time:	Company
Custody Seals Intact	Custody Seal No:		Comments: °C and Other Remarks:			
X Yes <input checked="" type="checkbox"/> No			10/29/2011 12:44 PM ACC			

## Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 560-28289-1

**Login Number: 28289**

**List Source: TestAmerica Corpus Christi**

**List Number: 1**

**Creator: Magee, Alice J.**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 560-28289-1

**Login Number:** 28289

**List Source:** TestAmerica Houston

**List Number:** 1

**List Creation:** 09/27/11 09:55 AM

**Creator:** Fuentes Jr, Fabio

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Corpus Christi  
1733 N. Padre Island Drive  
Corpus Christi, TX 78408  
Tel: (361)289-2673

TestAmerica Job ID: 560-28526-1

Client Project/Site: Falcon Refinery Tank 30

For:

TRC Solutions, Inc.  
10011 Meadowglen  
Suite 100  
Houston, Texas 77042

Attn: Mr. Alonzo Arredondo

*Erica Padilla*

Authorized for release by:  
10/19/2011 03:49:52 PM

Erica Padilla  
Project Manager I  
[erica.padilla@testamericainc.com](mailto:erica.padilla@testamericainc.com)

### LINKS

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Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

## Definitions/Glossary

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

#### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

**Abbreviation** These commonly used abbreviations may or may not be present in this report.

✉	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Case Narrative

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

### Job ID: 560-28526-1

Laboratory: TestAmerica Corpus Christi

#### Narrative

Job Narrative  
560-28526-1

#### Comments

No additional comments.

#### Receipt

All samples were received in good condition within temperature requirements.

#### GC/MS VOA

No analytical or quality issues were noted.

#### GC/MS Semi VOA

Method 8270C: Surrogate recovery for the following sample was outside control limits: 560-28526-1. Evidence of matrix interference is present and the LCS was within acceptable limits. Therefore, re-extraction and/or re-analysis was not performed and data are reported.

No other analytical or quality issues were noted.

#### Metals

No analytical or quality issues were noted.

#### General Chemistry

No analytical or quality issues were noted.

#### Organic Prep

Method 3550B: Due to the matrix, the initial volume used for the following samples deviated from the standard procedure: 560-28060-1 and -2. Analysts used 5g of sample instead of 30g. Additionally, sample 560-28060-1 could not be distilled to the method required final volume of 1 mL. The sample was concentrated to 5mL. The reporting limits (RLs) have been adjusted proportionately.

No other analytical or quality issues were noted.

# Detection Summary

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

**Client Sample ID: Tank 30 Sludge**

**Lab Sample ID: 560-28526-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	87		3.1	0.62	mg/Kg	1000	⊗	8260B	Total/NA
Ethylbenzene	150		3.1	0.31	mg/Kg	1000	⊗	8260B	Total/NA
Toluene	0.89 J		3.1	0.31	mg/Kg	1000	⊗	8260B	Total/NA
Xylenes, Total	760		9.3	0.31	mg/Kg	1000	⊗	8260B	Total/NA
Benzo[a]anthracene	160		150	7.8	mg/Kg	10	⊗	8270C	Total/NA
Benzo[g,h,i]perylene	28 J		150	7.8	mg/Kg	10	⊗	8270C	Total/NA
Chrysene	260		150	7.8	mg/Kg	10	⊗	8270C	Total/NA
Fluorene	110 J		150	7.8	mg/Kg	10	⊗	8270C	Total/NA
Naphthalene	250		150	19	mg/Kg	10	⊗	8270C	Total/NA
Phenanthrene	290		150	7.8	mg/Kg	10	⊗	8270C	Total/NA
Pyrene	310		150	7.8	mg/Kg	10	⊗	8270C	Total/NA
Lead	0.0084 J		0.010	0.0033	mg/L	1		6010B	TCLP
Cadmium	0.0013 J		0.0050	0.00034	mg/L	1		6010B	TCLP
Barium	0.56		0.010	0.0020	mg/L	1		6010B	TCLP
Arsenic	0.0040 J		0.010	0.0035	mg/L	1		6010B	TCLP
Selenium	0.0049 J		0.010	0.0042	mg/L	1		6010B	TCLP
Chromium	0.0028 J		0.010	0.0011	mg/L	1		6010B	TCLP
Mercury	0.35		0.17	0.015	mg/Kg	1	⊗	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.76		0.100	0.100	SU	1		9045D	Total/NA
Flashpoint	>212		1.0	1.0	Degrees F	1		D92	Total/NA

# Client Sample Results

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

## Client Sample ID: Tank 30 Sludge

Date Collected: 10/05/11 15:14  
Date Received: 10/05/11 16:40

## Lab Sample ID: 560-28526-1

Matrix: Solid  
Percent Solids: 63.7

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	87		3.1	0.62	mg/Kg	⊗	10/11/11 13:59	10/12/11 14:59	1000
Ethylbenzene	150		3.1	0.31	mg/Kg	⊗	10/11/11 13:59	10/12/11 14:59	1000
Toluene	0.89 J		3.1	0.31	mg/Kg	⊗	10/11/11 13:59	10/12/11 14:59	1000
Xylenes, Total	760		9.3	0.31	mg/Kg	⊗	10/11/11 13:59	10/12/11 14:59	1000
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Toluene-d8 (Surr)	91		60 - 130				10/11/11 13:59	10/12/11 14:59	1000
4-Bromofluorobenzene (Surr)	123		37 - 138				10/11/11 13:59	10/12/11 14:59	1000
Dibromofluoromethane (Surr)	79		70 - 130				10/11/11 13:59	10/12/11 14:59	1000
1,2-Dichloroethane-d4 (Surr)	102		70 - 130				10/11/11 13:59	10/12/11 14:59	1000

### Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	160		150	7.8	mg/Kg	⊗	10/10/11 09:57	10/11/11 15:07	10
Benzo[g,h,i]perylene	28 J		150	7.8	mg/Kg	⊗	10/10/11 09:57	10/11/11 15:07	10
Chrysene	260		150	7.8	mg/Kg	⊗	10/10/11 09:57	10/11/11 15:07	10
Fluorene	110 J		150	7.8	mg/Kg	⊗	10/10/11 09:57	10/11/11 15:07	10
Naphthalene	250		150	19	mg/Kg	⊗	10/10/11 09:57	10/11/11 15:07	10
Phenanthrene	290		150	7.8	mg/Kg	⊗	10/10/11 09:57	10/11/11 15:07	10
Pyrene	310		150	7.8	mg/Kg	⊗	10/10/11 09:57	10/11/11 15:07	10
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Nitrobenzene-d5	178 X		48 - 130				10/10/11 09:57	10/11/11 15:07	10
2-Fluorobiphenyl	89		57 - 130				10/10/11 09:57	10/11/11 15:07	10
Terphenyl-d14	84		58 - 130				10/10/11 09:57	10/11/11 15:07	10
Phenol-d5	92		56 - 130				10/10/11 09:57	10/11/11 15:07	10
2-Fluorophenol	83		48 - 130				10/10/11 09:57	10/11/11 15:07	10
2,4,6-Tribromophenol	79		30 - 131				10/10/11 09:57	10/11/11 15:07	10

### Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0084 J		0.010	0.0033	mg/L	⊗	10/13/11 10:00	10/13/11 16:00	1
Cadmium	0.0013 J		0.0050	0.00034	mg/L	⊗	10/13/11 10:00	10/13/11 16:00	1
Barium	0.56		0.010	0.0020	mg/L	⊗	10/13/11 10:00	10/13/11 16:00	1
Silver	<0.0010		0.0050	0.0010	mg/L	⊗	10/13/11 10:00	10/13/11 16:00	1
Arsenic	0.0040 J		0.010	0.0035	mg/L	⊗	10/13/11 10:00	10/13/11 16:00	1
Selenium	0.0049 J		0.010	0.0042	mg/L	⊗	10/13/11 10:00	10/13/11 16:00	1
Chromium	0.0028 J		0.010	0.0011	mg/L	⊗	10/13/11 10:00	10/13/11 16:00	1

### Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.0020	0.00013	mg/L	⊗	10/14/11 08:15	10/14/11 14:22	1

### Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.35		0.17	0.015	mg/Kg	⊗	10/13/11 08:15	10/13/11 12:40	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	<0.086		0.25	0.086	mg/Kg	⊗	10/11/11 17:30	10/12/11 17:26	1

# Client Sample Results

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

## Client Sample ID: Tank 30 Sludge

Date Collected: 10/05/11 15:14  
Date Received: 10/05/11 16:40

Lab Sample ID: 560-28526-1

Matrix: Solid

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	<50		50	50	mg/Kg		10/11/11 09:15	10/11/11 09:15	1
pH	<b>6.76</b>		0.100	0.100	SU			10/10/11 10:40	1
Flashpoint	<b>&gt;212</b>		1.0	1.0	Degrees F			10/12/11 13:30	1

# QC Sample Results

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID:** MB 560-64991/1-A

**Matrix:** Solid

**Analysis Batch:** 65072

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 64991

Analyte	MB		RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed		
Benzene	<0.020		0.10	0.020	mg/Kg		10/10/11 08:00	10/12/11 10:00		50
Ethylbenzene	<0.010		0.10	0.010	mg/Kg		10/10/11 08:00	10/12/11 10:00		50
Toluene	<0.010		0.10	0.010	mg/Kg		10/10/11 08:00	10/12/11 10:00		50
Xylenes, Total	<0.010		0.30	0.010	mg/Kg		10/10/11 08:00	10/12/11 10:00		50

**MB MB**

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
Toluene-d8 (Surr)	105		60 - 130	10/10/11 08:00	10/12/11 10:00	50
4-Bromofluorobenzene (Surr)	97		37 - 138	10/10/11 08:00	10/12/11 10:00	50
Dibromofluoromethane (Surr)	105		70 - 130	10/10/11 08:00	10/12/11 10:00	50
1,2-Dichloroethane-d4 (Surr)	112		70 - 130	10/10/11 08:00	10/12/11 10:00	50

**Lab Sample ID:** LCS 560-64991/2-A

**Matrix:** Solid

**Analysis Batch:** 65072

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 64991

Analyte	Spike		Result	Qualifier	Unit	D	% Rec.		Limits
	Added						% Rec.	Limits	
Benzene	2.50		2.44		mg/Kg		98	70 - 130	
Ethylbenzene	2.50		2.48		mg/Kg		99	70 - 130	
Toluene	2.50		2.39		mg/Kg		96	70 - 130	
Xylenes, Total	7.50		7.27		mg/Kg		97	70 - 130	

**LCS LCS**

Surrogate	LCS		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
Toluene-d8 (Surr)	111		60 - 130			
4-Bromofluorobenzene (Surr)	102		37 - 138			
Dibromofluoromethane (Surr)	114		70 - 130			
1,2-Dichloroethane-d4 (Surr)	107		70 - 130			

**Lab Sample ID:** MB 560-65040/1-A

**Matrix:** Solid

**Analysis Batch:** 65027

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 65040

Analyte	MB		RL	MDL	Unit	D	% Rec.		Limits
	Result	Qualifier					% Rec.	Limits	
Benzene	<0.020		0.10	0.020	mg/Kg		10/11/11 08:00	10/11/11 10:45	
Ethylbenzene	<0.010		0.10	0.010	mg/Kg		10/11/11 08:00	10/11/11 10:45	
Toluene	<0.010		0.10	0.010	mg/Kg		10/11/11 08:00	10/11/11 10:45	
Xylenes, Total	<0.010		0.30	0.010	mg/Kg		10/11/11 08:00	10/11/11 10:45	

**MB MB**

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
Toluene-d8 (Surr)	107		60 - 130	10/11/11 08:00	10/11/11 10:45	50
4-Bromofluorobenzene (Surr)	96		37 - 138	10/11/11 08:00	10/11/11 10:45	50
Dibromofluoromethane (Surr)	110		70 - 130	10/11/11 08:00	10/11/11 10:45	50
1,2-Dichloroethane-d4 (Surr)	112		70 - 130	10/11/11 08:00	10/11/11 10:45	50

**Lab Sample ID:** LCS 560-65040/2-A

**Matrix:** Solid

**Analysis Batch:** 65027

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 65040

Analyte	Spike		Result	Qualifier	Unit	D	% Rec.		Limits
	Added						% Rec.	Limits	
Benzene	2.50		2.35		mg/Kg		94	70 - 130	

# QC Sample Results

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 560-65040/2-A**

**Matrix: Solid**

**Analysis Batch: 65027**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 65040**

Analyte		Spike	LCS	LCS	Unit	D	% Rec	Limits
		Added	Result	Qualifier				
Ethylbenzene		2.50	2.48		mg/Kg	99	70 - 130	
Toluene		2.50	2.41		mg/Kg	96	70 - 130	
Xylenes, Total		7.50	7.20		mg/Kg	96	70 - 130	

Surrogate	LCS		LCS	Limits
	% Recovery	Qualifier		
Toluene-d8 (Surr)	112		60 - 130	
4-Bromofluorobenzene (Surr)	101		37 - 138	
Dibromofluoromethane (Surr)	113		70 - 130	
1,2-Dichloroethane-d4 (Surr)	103		70 - 130	

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 560-65018/1-A**

**Matrix: Solid**

**Analysis Batch: 65041**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 65018**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzo[a]anthracene	<0.017		0.33	0.017	mg/Kg		10/10/11 09:57	10/11/11 13:01	1
Benzo[g,h,i]perylene	<0.017		0.33	0.017	mg/Kg		10/10/11 09:57	10/11/11 13:01	1
Chrysene	<0.017		0.33	0.017	mg/Kg		10/10/11 09:57	10/11/11 13:01	1
Fluorene	<0.017		0.33	0.017	mg/Kg		10/10/11 09:57	10/11/11 13:01	1
Naphthalene	<0.041		0.33	0.041	mg/Kg		10/10/11 09:57	10/11/11 13:01	1
Phenanthrene	<0.017		0.33	0.017	mg/Kg		10/10/11 09:57	10/11/11 13:01	1
Pyrene	<0.017		0.33	0.017	mg/Kg		10/10/11 09:57	10/11/11 13:01	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
Nitrobenzene-d5	86		48 - 130	10/10/11 09:57	10/11/11 13:01	1
2-Fluorobiphenyl	87		57 - 130	10/10/11 09:57	10/11/11 13:01	1
Terphenyl-d14	100		58 - 130	10/10/11 09:57	10/11/11 13:01	1
Phenol-d5	89		56 - 130	10/10/11 09:57	10/11/11 13:01	1
2-Fluorophenol	82		48 - 130	10/10/11 09:57	10/11/11 13:01	1
2,4,6-Tribromophenol	93		30 - 131	10/10/11 09:57	10/11/11 13:01	1

**Lab Sample ID: LCS 560-65018/2-A**

**Matrix: Solid**

**Analysis Batch: 65041**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 65018**

Analyte	Spike	LCS	LCS	Unit	D	% Rec	Limits
	Added	Result	Qualifier				
Benzo[a]anthracene	3.30	3.14		mg/Kg		95	70 - 130
Benzo[g,h,i]perylene	3.30	3.17		mg/Kg		96	70 - 130
Chrysene	3.30	3.10		mg/Kg		94	70 - 130
Fluorene	3.30	2.97		mg/Kg		90	70 - 130
Naphthalene	3.30	2.47		mg/Kg		75	70 - 130
Phenanthrene	3.30	3.09		mg/Kg		94	70 - 130
Pyrene	3.30	2.43		mg/Kg		74	70 - 130

Surrogate	LCS		LCS	Limits
	% Recovery	Qualifier		
Nitrobenzene-d5	82		48 - 130	

# QC Sample Results

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID:** LCS 560-65018/2-A

**Matrix:** Solid

**Analysis Batch:** 65041

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 65018

Surrogate	LCS	LCS	
	% Recovery	Qualifier	Limits
2-Fluorobiphenyl	86		57 - 130
Terphenyl-d14	89		58 - 130
Phenol-d5	85		56 - 130
2-Fluorophenol	75		48 - 130
2,4,6-Tribromophenol	100		30 - 131

## Method: 6010B - Metals (ICP)

**Lab Sample ID:** MB 560-65141/1-A

**Matrix:** Solid

**Analysis Batch:** 65141

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 65141

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0033				0.010	0.0033	mg/L		10/13/11 10:00	10/13/11 15:56	1
Cadmium	<0.00034				0.0050	0.00034	mg/L		10/13/11 10:00	10/13/11 15:56	1
Barium	0.00244	J			0.010	0.0020	mg/L		10/13/11 10:00	10/13/11 15:56	1
Silver	<0.0010				0.0050	0.0010	mg/L		10/13/11 10:00	10/13/11 15:56	1
Arsenic	<0.0035				0.010	0.0035	mg/L		10/13/11 10:00	10/13/11 15:56	1
Selenium	<0.0042				0.010	0.0042	mg/L		10/13/11 10:00	10/13/11 15:56	1
Chromium	<0.0011				0.010	0.0011	mg/L		10/13/11 10:00	10/13/11 15:56	1

**Lab Sample ID:** LCS 560-65141/2-A

**Matrix:** Solid

**Analysis Batch:** 65174

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 65141

Analyte	Spike			LCS			% Rec.		
	Added	Result	Qualifier	Unit	D	% Rec	Limits		
Lead	0.400	0.425		mg/L		106	80 - 120		
Cadmium	0.400	0.414		mg/L		104	80 - 120		
Barium	0.400	0.416		mg/L		104	80 - 120		
Silver	0.400	0.404		mg/L		101	80 - 120		
Arsenic	0.400	0.396		mg/L		99	80 - 120		
Selenium	0.400	0.397		mg/L		99	80 - 120		
Chromium	0.400	0.412		mg/L		103	80 - 120		

**Lab Sample ID:** LB2 560-65125/2-B LB2

**Matrix:** Solid

**Analysis Batch:** 65174

**Client Sample ID:** Method Blank

**Prep Type:** TCLP

**Prep Batch:** 65141

Analyte	LB2	LB2	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0033				0.010	0.0033	mg/L		10/13/11 10:00	10/13/11 16:17	1
Cadmium	<0.00034				0.0050	0.00034	mg/L		10/13/11 10:00	10/13/11 16:17	1
Barium	<0.0020				0.010	0.0020	mg/L		10/13/11 10:00	10/13/11 16:17	1
Silver	<0.0010				0.0050	0.0010	mg/L		10/13/11 10:00	10/13/11 16:17	1
Arsenic	<0.0035				0.010	0.0035	mg/L		10/13/11 10:00	10/13/11 16:17	1
Selenium	<0.0042				0.010	0.0042	mg/L		10/13/11 10:00	10/13/11 16:17	1
Chromium	<0.0011				0.010	0.0011	mg/L		10/13/11 10:00	10/13/11 16:17	1

# QC Sample Results

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: 560-28526-1 MS**

**Matrix: Solid**

**Analysis Batch: 65174**

**Client Sample ID: Tank 30 Sludge**

**Prep Type: TCLP**

**Prep Batch: 65141**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	% Rec	% Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD
Lead	0.0084	J	0.400	0.407		mg/L	100	80 - 120		
Cadmium	0.0013	J	0.400	0.412		mg/L	103	80 - 120		
Barium	0.56		0.400	0.962		mg/L	101	80 - 120		
Silver	<0.0010		0.400	0.417		mg/L	104	80 - 120		
Arsenic	0.0040	J	0.400	0.409		mg/L	101	80 - 120		
Selenium	0.0049	J	0.400	0.412		mg/L	102	80 - 120		
Chromium	0.0028	J	0.400	0.401		mg/L	100	80 - 120		

**Lab Sample ID: 560-28526-1 MSD**

**Matrix: Solid**

**Analysis Batch: 65174**

**Client Sample ID: Tank 30 Sludge**

**Prep Type: TCLP**

**Prep Batch: 65141**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec	% Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD
Lead	0.0084	J	0.400	0.404		mg/L	99	80 - 120	1	20
Cadmium	0.0013	J	0.400	0.410		mg/L	102	80 - 120	0	20
Barium	0.56		0.400	0.983		mg/L	106	80 - 120	2	20
Silver	<0.0010		0.400	0.416		mg/L	104	80 - 120	0	20
Arsenic	0.0040	J	0.400	0.408		mg/L	101	80 - 120	0	20
Selenium	0.0049	J	0.400	0.412		mg/L	102	80 - 120	0	20
Chromium	0.0028	J	0.400	0.400		mg/L	99	80 - 120	0	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: LB 560-65216/40-A LB**

**Client Sample ID: Method Blank**

**Matrix: Solid**

**Prep Type: Total/NA**

**Analysis Batch: 65220**

**Prep Batch: 65216**

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier							Limits	RPD
Mercury	<0.00013		0.0020	0.00013	mg/L	1	10/14/11 08:15	10/14/11 16:28		

**Lab Sample ID: MB 560-65216/4-A**

**Client Sample ID: Method Blank**

**Matrix: Solid**

**Prep Type: Total/NA**

**Analysis Batch: 65220**

**Prep Batch: 65216**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier							Limits	RPD
Mercury	<0.00013		0.0020	0.00013	mg/L	1	10/14/11 08:15	10/14/11 14:16		

**Lab Sample ID: LCS 560-65216/5-A**

**Client Sample ID: Lab Control Sample**

**Matrix: Solid**

**Prep Type: Total/NA**

**Analysis Batch: 65220**

**Prep Batch: 65216**

Analyte	Spike	LCS	LCS	Unit	D	% Rec.	
	Added					Result	Qualifier
Mercury	0.00500	0.00533		mg/L	107	80 - 120	

**Lab Sample ID: 560-28526-1 MS**

**Client Sample ID: Tank 30 Sludge**

**Matrix: Solid**

**Prep Type: TCLP**

**Analysis Batch: 65220**

**Prep Batch: 65216**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	% Rec.	
	Result	Qualifier	Added	Result	Qualifier			Result	Qualifier
Mercury	<0.00013		0.00500	0.00559		mg/L	112	80 - 120	

# QC Sample Results

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID:** 560-28526-1 MSD

**Matrix:** Solid

**Analysis Batch:** 65220

**Client Sample ID:** Tank 30 Sludge

**Prep Type:** TCLP

**Prep Batch:** 65216

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec.	RPD	
	Result	Qualifier	Added	Result	Qualifier			% Rec	Limits	RPD
Mercury	<0.00013		0.00500	0.00538		mg/L	108	80 - 120	4	20

## Method: 7471A - Mercury (CVAA)

**Lab Sample ID:** MB 560-65168/4-A

**Client Sample ID:** Method Blank

**Matrix:** Solid

**Prep Type:** Total/NA

**Analysis Batch:** 65155

**Prep Batch:** 65168

Analyte	MB	MB	Spike	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Added	RL	MDL	Unit		Prepared	Analyzed	Dil Fac
Mercury	<0.018			0.20	0.018	mg/Kg		10/13/11 08:15	10/13/11 12:03	1

**Lab Sample ID:** LCS 560-65168/5-A

**Client Sample ID:** Lab Control Sample

**Matrix:** Solid

**Prep Type:** Total/NA

**Analysis Batch:** 65155

**Prep Batch:** 65168

Analyte	Spike	LCS	LCS	Unit	D	% Rec.
	Added	Result	Qualifier			% Rec
Mercury		0.417	0.462	mg/Kg	111	80 - 120

## Method: 9012 - Cyanide, Reactive

**Lab Sample ID:** MB 600-64134/1-A

**Client Sample ID:** Method Blank

**Matrix:** Solid

**Prep Type:** Total/NA

**Analysis Batch:** 64206

**Prep Batch:** 64134

Analyte	MB	MB	Spike	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Added	RL	MDL	Unit		Prepared	Analyzed	Dil Fac
Cyanide, Reactive	<0.086			0.25	0.086	mg/Kg		10/11/11 17:30	10/12/11 17:26	1

**Lab Sample ID:** LCS 600-64134/2-A

**Client Sample ID:** Lab Control Sample

**Matrix:** Solid

**Prep Type:** Total/NA

**Analysis Batch:** 64206

**Prep Batch:** 64134

Analyte	Spike	LCS	LCS	Unit	D	% Rec.
	Added	Result	Qualifier			% Rec
Cyanide, Reactive		1000	40.9	mg/Kg	4	0 - 100

## Method: 9034 - Sulfide, Reactive

**Lab Sample ID:** MB 560-65042/1-A

**Client Sample ID:** Method Blank

**Matrix:** Solid

**Prep Type:** Total/NA

**Analysis Batch:** 65043

**Prep Batch:** 65042

Analyte	MB	MB	Spike	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Added	RL	Unit	Dil Fac		Prepared	Analyzed	Dil Fac
Sulfide, Reactive	<50			50	50	mg/Kg		10/11/11 09:15	10/11/11 09:15	1

**Lab Sample ID:** LCS 560-65042/2-A

**Client Sample ID:** Lab Control Sample

**Matrix:** Solid

**Prep Type:** Total/NA

**Analysis Batch:** 65043

**Prep Batch:** 65042

Analyte	Spike	LCS	LCS	Unit	D	% Rec.
	Added	Result	Qualifier			% Rec
Sulfide, Reactive		214	126	mg/Kg	59	28 - 140

# QC Sample Results

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

## Method: 9034 - Sulfide, Reactive (Continued)

**Lab Sample ID:** 560-28526-1 DU

**Matrix:** Solid

**Analysis Batch:** 65043

**Client Sample ID:** Tank 30 Sludge

**Prep Type:** Total/NA

**Prep Batch:** 65042

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier			NC	30	
Sulfide, Reactive	<50		<50		mg/Kg	D	NC	30	

## Method: 9045D - pH

**Lab Sample ID:** LCS 560-65008/2

**Matrix:** Solid

**Analysis Batch:** 65008

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

Analyte	Spike	LCS	LCS	Unit	D	% Rec.	Limits
	Added	Result	Qualifier			% Rec	
pH	4.99	5.040		SU	D	101	98 - 102

## Method: D92 - Flashpoint

**Lab Sample ID:** MB 600-64186/1

**Matrix:** Solid

**Analysis Batch:** 64186

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Flashpoint	>186		1.0	Degrees F	D	Prepared	10/12/11 13:30	1

**Lab Sample ID:** LCS 600-64186/2

**Matrix:** Solid

**Analysis Batch:** 64186

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

Analyte	Spike	LCS	LCS	Unit	D	% Rec.	Limits
	Added	Result	Qualifier			% Rec	
Flashpoint	81.0	80.4		Degrees F	D	99	96.9 - 103.

## Certification Summary

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Corpus Christi	Kansas	NELAC	7	E-10362
TestAmerica Corpus Christi	Oklahoma	State Program	6	9968
TestAmerica Corpus Christi	Texas	NELAC	6	T104704210-11-5
TestAmerica Corpus Christi	USDA	USDA		P330-11-00060
TestAmerica Houston	Arkansas	State Program	6	88-0759
TestAmerica Houston	Louisiana	NELAC	6	30643
TestAmerica Houston	Oklahoma	State Program	6	9503
TestAmerica Houston	Texas	NELAC	6	T104704223-10-6-TX
TestAmerica Houston	USDA	USDA		P330-08-00217
TestAmerica Houston	Utah	NELAC	8	GULF

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

## Method Summary

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CC
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CC
6010B	Metals (ICP)	SW846	TAL CC
7470A	Mercury (CVAA)	SW846	TAL CC
7471A	Mercury (CVAA)	SW846	TAL CC
9012	Cyanide, Reactive	SW846	TAL HOU
9034	Sulfide, Reactive	SW846	TAL CC
9045D	pH	SW846	TAL CC
D92	Flashpoint	ASTM	TAL HOU
Moisture	Percent Moisture	EPA	TAL CC

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL CC = TestAmerica Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

## Sample Summary

Client: TRC Solutions, Inc.  
Project/Site: Falcon Refinery Tank 30

TestAmerica Job ID: 560-28526-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
560-28526-1	Tank 30 Sludge	Solid	10/05/11 15:14	10/05/11 16:40

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## CHAIN OF CUSTODY RECORD

CUSTOMER INFORMATION		PROJECT INFORMATION		ANALYSIS/METHOD REQUEST		LAB JOB NO.	
COMPANY: <i>TRC</i>	SEND REPORT TO: <i>Alonzo G. Arebedondo</i>	PROJECT NAME/NUMBER: <i>Falcon Refinery</i>	BILL TO: <i>TRC</i>			<b>28526</b>	
ADDRESS: <i>AREBOND © TRCSolutions.com</i>	ADDRESS: <i></i>			SEAL INTACT <i>Yes</i>	COOLER TEMP <i>21°C</i>	IR GUN ID <i>5</i>	INITIAL/DATE <i>gjm 10/05/11</i>
PHONE: <i>512-699-9931</i>	PHONE: <i></i>						
FAX: <i></i>	FAX: <i></i>						
SAMPLE DESCRIPTION							
SAMPLE NO.	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER	PRESERV.	REMARKS/PRECAUTIONS.	
<i>1</i>	<i>10/5/2011</i>	<i>3:14pm</i>	<i>Sludge</i>	<i>Qt</i>	<i>N/DNE</i>	<i>1</i>	<i>RCCI</i>
							<i>K169 semi volatile compounds</i>
							<i>K169 volatile compounds</i>
							<i>Mercury</i>
							<i>RCRA methods (8)</i>
NUMBER OF CONTAINERS							
<i>1</i> <i>1</i> <i>1</i> <i>1</i> <i>1</i> <i>1</i> <i>1</i> <i>1</i>							
SHIPMENT METHOD:		<i>Drop off</i>		AIRBILL NO.:			
REQUIRED TURNAROUND:		<input checked="" type="checkbox"/> ROUTINE TAT (10 BUSINESS DAYS) <input type="checkbox"/> RUSH TAT (MAY REQUIRE SURCHARGE)					
RELINQUISHED BY:	<i>Alonzo G. Arebedondo</i>	DATE: <i>10/05/11</i>	RELINQUISHED BY:	DATE: <i>10/05/11</i>	RELINQUISHED BY:	DATE: <i>10/05/11</i>	RELINQUISHED BY:
SIGNATURE: <i>Alonzo G. Arebedondo</i>		SIGNATURE: <i>Alonzo G. Arebedondo</i>		SIGNATURE: <i>Alonzo G. Arebedondo</i>		SIGNATURE: <i>Alonzo G. Arebedondo</i>	
PRINTED NAME/COMPANY: <i>TRC</i>	TIME: <i>40</i>	PRINTED NAME/COMPANY: <i>TRC</i>	TIME: <i>40</i>	PRINTED NAME/COMPANY: <i>TRC</i>	TIME: <i>40</i>	PRINTED NAME/COMPANY: <i>TRC</i>	TIME: <i>40</i>
RECEIVED BY:	<i>John Mager</i>	DATE: <i>10/05/11</i>	RECEIVED BY:	DATE: <i>10/05/11</i>	RECEIVED BY:	DATE: <i>10/05/11</i>	RECEIVED BY:
SIGNATURE: <i>John Mager</i>		SIGNATURE: <i>John Mager</i>		SIGNATURE: <i>John Mager</i>		SIGNATURE: <i>John Mager</i>	
PRINTED NAME/COMPANY: <i>AAC</i>	TIME: <i>40</i>	PRINTED NAME/COMPANY: <i>AAC</i>	TIME: <i>40</i>	PRINTED NAME/COMPANY: <i>AAC</i>	TIME: <i>40</i>	PRINTED NAME/COMPANY: <i>AAC</i>	TIME: <i>40</i>

## Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 560-28526-1

**Login Number: 28526**

**List Source: TestAmerica Corpus Christi**

**List Number: 1**

**Creator: Magee, Alice J.**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	False	2 oz & 4 oz split for VOC and subcontract.
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 560-28526-1

**Login Number:** 28526

**List Source:** TestAmerica Houston

**List Number:** 1

**List Creation:** 10/10/11 09:07 AM

**Creator:** Daniel, Kevin R

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	3.3
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Corpus Christi  
1733 N. Padre Island Drive  
Corpus Christi, TX 78408  
Tel: (361)289-2673

TestAmerica Job ID: 560-28289-2

Client Project/Site: Falcon Refinery - Ingleside, TX

For:

TRC Solutions, Inc.  
10011 Meadowglen  
Suite 100  
Houston, Texas 77042

Attn: Mr. Alonzo Arredondo

*Erica Padilla*

Authorized for release by:  
10/05/2011 05:00:56 PM

Erica Padilla  
Project Manager I  
[erica.padilla@testamericainc.com](mailto:erica.padilla@testamericainc.com)

### LINKS

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The  
Expert

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[www.testamericainc.com](http://www.testamericainc.com)

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

## Definitions/Glossary

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery - Ingleside, TX

TestAmerica Job ID: 560-28289-2

### Qualifiers

#### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

**Abbreviation** These commonly used abbreviations may or may not be present in this report.

☀	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Case Narrative

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery - Ingleside, TX

TestAmerica Job ID: 560-28289-2

### Job ID: 560-28289-2

Laboratory: TestAmerica Corpus Christi

#### Narrative

Job Narrative  
560-28289-2

#### Comments

No additional comments.

#### Receipt

All samples were received in good condition within temperature requirements.

#### Metals

No analytical or quality issues were noted.

#### General Chemistry

No analytical or quality issues were noted.

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## Detection Summary

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery - Ingleside, TX

TestAmerica Job ID: 560-28289-2

**Client Sample ID: Tanks 18, 19, & 22**

**Lab Sample ID: 560-28289-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.011		0.010	0.0033	mg/L	1		6010B	TCLP
Nickel	0.017		0.010	0.0020	mg/L	1		6010B	TCLP

**Client Sample ID: Tanks 17, 21, 23, & 24**

**Lab Sample ID: 560-28289-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.00052	J	0.0050	0.00034	mg/L	1		6010B	TCLP
Chromium	0.0052	J	0.010	0.0011	mg/L	1		6010B	TCLP
Nickel	0.0031	J	0.010	0.0020	mg/L	1		6010B	TCLP

# Client Sample Results

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery - Ingleside, TX

TestAmerica Job ID: 560-28289-2

**Client Sample ID: Tanks 18, 19, & 22**

**Lab Sample ID: 560-28289-1**

Matrix: Solid

Date Collected: 09/22/11 10:15

Date Received: 09/22/11 17:00

**Method: 6010B - Metals (ICP) - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.011		0.010	0.0033	mg/L		10/04/11 09:30	10/04/11 14:19	1
Chromium	<0.0011		0.010	0.0011	mg/L		10/04/11 09:30	10/04/11 14:19	1
Nickel	0.017		0.010	0.0020	mg/L		10/04/11 09:30	10/04/11 14:19	1

**Client Sample ID: Tanks 17, 21, 23, & 24**

**Lab Sample ID: 560-28289-2**

Matrix: Solid

Date Collected: 09/22/11 10:25

Date Received: 09/22/11 17:00

**Method: 6010B - Metals (ICP) - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0033		0.010	0.0033	mg/L		10/04/11 09:30	10/04/11 14:28	1
Cadmium	0.00052 J		0.0050	0.00034	mg/L		10/04/11 09:30	10/04/11 14:28	1
Chromium	0.0052 J		0.010	0.0011	mg/L		10/04/11 09:30	10/04/11 14:28	1
Nickel	0.0031 J		0.010	0.0020	mg/L		10/04/11 09:30	10/04/11 14:28	1

**Method: 7470A - Mercury (CVAA) - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.0020	0.00013	mg/L		10/05/11 08:15	10/05/11 15:22	1

# QC Sample Results

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery - Ingleside, TX

TestAmerica Job ID: 560-28289-2

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 560-64802/1-A**

**Matrix: Solid**

**Analysis Batch: 64813**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 64802**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lead	<0.0033		0.010	0.0033	mg/L		10/04/11 09:30	10/04/11 14:14	1
Cadmium	<0.00034		0.0050	0.00034	mg/L		10/04/11 09:30	10/04/11 14:14	1
Chromium	<0.0011		0.010	0.0011	mg/L		10/04/11 09:30	10/04/11 14:14	1
Nickel	<0.0020		0.010	0.0020	mg/L		10/04/11 09:30	10/04/11 14:14	1

**Lab Sample ID: LCS 560-64802/2-A**

**Matrix: Solid**

**Analysis Batch: 64813**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 64802**

Analyte	MB	MB	Spike	LCS	LCS	D	% Rec	Limits	% Rec.
	Result	Qualifier	Added	Result	Qualifier				
Lead			0.400	0.416		mg/L	104	80 - 120	
Cadmium			0.400	0.409		mg/L	102	80 - 120	
Chromium			0.400	0.413		mg/L	103	80 - 120	
Nickel			0.400	0.409		mg/L	102	80 - 120	

**Lab Sample ID: 560-28289-1 MS**

**Matrix: Solid**

**Analysis Batch: 64813**

**Client Sample ID: Tanks 18, 19, & 22**

**Prep Type: TCLP**

**Prep Batch: 64802**

Analyte	Sample	Sample	Spike	MS	MS	D	% Rec	Limits	% Rec.
	Result	Qualifier	Added	Result	Qualifier				
Lead	0.011		0.400	0.409		mg/L	99	80 - 120	
Cadmium	0.0015		0.400	0.415		mg/L	103	80 - 120	
Chromium	<0.0011		0.400	0.409		mg/L	102	80 - 120	
Nickel	0.017		0.400	0.412		mg/L	99	80 - 120	

**Lab Sample ID: 560-28289-1 MSD**

**Matrix: Solid**

**Analysis Batch: 64813**

**Client Sample ID: Tanks 18, 19, & 22**

**Prep Type: TCLP**

**Prep Batch: 64802**

Analyte	Sample	Sample	Spike	MSD	MSD	D	% Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier					
Lead	0.011		0.400	0.408		mg/L	99	80 - 120	0	20
Cadmium	0.0015		0.400	0.414		mg/L	103	80 - 120	0	20
Chromium	<0.0011		0.400	0.406		mg/L	102	80 - 120	1	20
Nickel	0.017		0.400	0.411		mg/L	99	80 - 120	0	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: LB 560-64871/17-A LB**

**Matrix: Solid**

**Analysis Batch: 64876**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 64871**

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00013		0.0020	0.00013	mg/L		10/05/11 08:15	10/05/11 15:50	1

**Lab Sample ID: MB 560-64871/4-A**

**Matrix: Solid**

**Analysis Batch: 64876**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 64871**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00013		0.0020	0.00013	mg/L		10/05/11 08:15	10/05/11 15:16	1

# QC Sample Results

Client: TRC Solutions, Inc.

TestAmerica Job ID: 560-28289-2

Project/Site: Falcon Refinery - Ingleside, TX

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 560-64871/5-A**

**Matrix: Solid**

**Analysis Batch: 64876**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 64871**

Analyte	Spike Added	LCS		Unit	D	% Rec.		Limits
		Result	Qualifier			% Rec	Limits	
Mercury	0.00500	0.00555		mg/L	111		80 - 120	

**Lab Sample ID: 560-28289-2 MS**

**Matrix: Solid**

**Analysis Batch: 64876**

**Client Sample ID: Tanks 17, 21, 23, & 24**

**Prep Type: TCLP**

**Prep Batch: 64871**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	% Rec.		Limits
				Result	Qualifier			% Rec	Limits	
Mercury	<0.00013		0.00500	0.00430		mg/L	86		80 - 120	

**Lab Sample ID: 560-28289-2 MSD**

**Matrix: Solid**

**Analysis Batch: 64876**

**Client Sample ID: Tanks 17, 21, 23, & 24**

**Prep Type: TCLP**

**Prep Batch: 64871**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	% Rec.		RPD	Limit
				Result	Qualifier			% Rec	RPD		
Mercury	<0.00013		0.00500	0.00408		mg/L	82		80 - 120	5	20

## Certification Summary

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery - Ingleside, TX

TestAmerica Job ID: 560-28289-2

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Corpus Christi	Kansas	NELAC	7	E-10362
TestAmerica Corpus Christi	Oklahoma	State Program	6	9968
TestAmerica Corpus Christi	Texas	NELAC	6	T104704210-11-5
TestAmerica Corpus Christi	USDA	USDA		P330-11-00060

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

## Method Summary

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery - Ingleside, TX

TestAmerica Job ID: 560-28289-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CC
7470A	Mercury (CVAA)	SW846	TAL CC

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL CC = TestAmerica Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

## Sample Summary

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery - Ingleside, TX

TestAmerica Job ID: 560-28289-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
560-28289-1	Tanks 18, 19, & 22	Solid	09/22/11 10:15	09/22/11 17:00
560-28289-2	Tanks 17, 21, 23, & 24	Solid	09/22/11 10:25	09/22/11 17:00

**TestAmerica Corpus Christi**

Corpus Christi, TX 78408  
Phone (361) 289-2673 Fax (361) 289-2471

**Chain of Custody Record**

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

Client Information		Sample# Phone: 512-699-9931	Lab PM: Padilla, Erica	Carrier Tracking No(s): N/A - Hand Deliver	COC No: 560-4359-496.1
Client Contact:	Mr. Alonso Arredondo	E-Mail:	erica.padilla@testamericainc.com <th>Page:</th> <td>Page 1 of 1</td>	Page:	Page 1 of 1
Company:	TRC Solutions, Inc.	Job #:	28289		
Address:	10011 Meadowgreen Suite 100 City: Houston State, Zip: TX, 77042 Phone:	Due Date Requested: <u>5 day turn around</u> TAT Requested (days):		Preservation Codes:	
Email:	alonzo@arredondo@gmail.com	PO#:		A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Project Name:	(512) 99-9931	Purchase Order Requested: WO #:		M - Hexane N - None O - Na2O2 P - Na2O4S Q - Na2SCo3 R - Na2SO3 S - H2SO4 T - TSP Dodecylamine U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Site:	Falcon Refinery Superfund Site SSOW#: N/A	Project#: 5600CS359		Special Instructions/Note:	
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/tool, T=tissue, A=air)
				Solid	
Tanks 18, 19 & 22	9/22/2011 10:15AM	C		✓	✓
Tanks 17, 21, 23 & 24	9/22/2011 10:25AM	C	O	✓	✓
<b>Possible Hazard /Identification</b>					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by: <i>Alfonso L. Arredondo</i>	Date/Time: 9/22/2011 5:00pm	Company	Date/Time: 9/22/2011 5:00pm	Received by: Erica Padilla	Method of Shipment:
Relinquished by: <i>Alfonso L. Arredondo</i>	Date/Time: 9/22/2011 5:00pm	Company	Date/Time: 9/22/2011 5:00pm	Received by: Erica Padilla	Method of Shipment:
Sample Disposal / A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements:					
Custody Seals Intact    Custody Seal No: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Custody Temperature(s), °C and Other Remarks: <i>95/95</i>					

## Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 560-28289-2

SDG Number:

**Login Number: 28289**

**List Source: TestAmerica Corpus Christi**

**List Number: 1**

**Creator: Magee, Alice J.**

Question	Answer	Comment	
Radioactivity either was not measured or, if measured, is at or below background	N/A		1
The cooler's custody seal, if present, is intact.	True		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the sample IDs on the containers and the COC.	True		11
Samples are received within Holding Time.	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	True		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Corpus Christi  
1733 N. Padre Island Drive  
Corpus Christi, TX 78408  
Tel: (361)289-2673

TestAmerica Job ID: 560-28815-1

Client Project/Site: Falcon Refinery - Asbestos Testing

For:

TRC Solutions, Inc.  
10011 Meadowglen  
Suite 100  
Houston, Texas 77042

Attn: Mr. Alonzo Arredondo

*Erica Padilla*

Authorized for release by:  
10/25/2011 12:24:40 PM

Erica Padilla  
Project Manager I  
[erica.padilla@testamericainc.com](mailto:erica.padilla@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?

Ask  
The  
Expert

Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

## Case Narrative

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery - Asbestos Testing

TestAmerica Job ID: 560-28815-1

### Job ID: 560-28815-1

Laboratory: TestAmerica Corpus Christi

#### Narrative

##### Job Narrative 560-28815-1

#### Comments

No additional comments.

#### Receipt

No analytical or quality issues were noted.

#### Subcontract Work

Method EPA Asbestos: This method was subcontracted to EMLab P&K Ft. Worth. The subcontract lab certification is different from those listed for TestAmerica Corpus Christi in this final report.

## Certification Summary

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery - Asbestos Testing

TestAmerica Job ID: 560-28815-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Corpus Christi	Kansas	NELAC	7	E-10362
TestAmerica Corpus Christi	Oklahoma	State Program	6	9968
TestAmerica Corpus Christi	Texas	NELAC	6	T104704210-11-5
TestAmerica Corpus Christi	USDA	USDA		P330-11-00060

Accreditation may not be offered or required for all methods and analytes reported in this package . Please contact your project manager for the laboratory's current list of certified methods and analytes.

## Method Summary

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery - Asbestos Testing

TestAmerica Job ID: 560-28815-1

Method	Method Description	Protocol	Laboratory
Local Method	Asbestos	NONE	EMLab DFW

**Protocol References:**

NONE = NONE

**Laboratory References:**

EMLab DFW = EMLab P&K Ft. Worth, 2100 N. State Highway 360, Suite 1400, Grand Prairie, TX 75050

## Sample Summary

Client: TRC Solutions, Inc.

Project/Site: Falcon Refinery - Asbestos Testing

TestAmerica Job ID: 560-28815-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
560-28815-1	1 Insulation-Fiberglass	Solid	10/20/11 14:30	10/21/11 09:16

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Original  
Subcontract Laboratory  
Report



**EMLab P&K**

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Report for:

**Erica Padilla**  
**TestAmerica-Corpus Christi**  
1733 North Padre Island Drive  
Corpus Christi, TX 78408

---

Regarding: Project: Falcon - Waste Characterization  
EML ID: 846690

Approved by:

Dates of Analysis:  
Asbestos-EPA Method 600/R-93/116: 10-24-2011

*Nicole Hawthorne*

Technical Manager  
Nicole Hawthorne

Service SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01264))

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All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

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Document Number: 200091 - Revision Number: 5

EMLab P&K, LLC

EMLab ID: 846690, Page 1 of 2

**EMLab P&K**2100 N. Highway 360, Suite 1400, Grand Prairie, TX 75050  
(800) 651-4802 Fax (623) 780-7695 www.emlab.comClient: TestAmerica-Corpus Christi  
C/O: Erica Padilla  
Re: Falcon - Waste CharacterizationDate of Sampling: 10-20-2011  
Date of Receipt: 10-24-2011  
Date of Report: 10-25-2011**ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116****Total Samples Submitted:** 1**Total Samples Analysed:** 1**Total Samples with Layer Asbestos Content > 1%:** 0**Location: 1, Insulation - fiberglass (560-28815-1)**

Lab ID-Version‡: 3756512-1

<b>Sample Layers</b>	<b>Asbestos Content</b>
White Insulation	ND
<b>Composite Non-Asbestos Fibrous Content:</b>	30% Cellulose
<b>Sample Composite Homogeneity:</b>	Good

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

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**End of**  
**Subcontract Laboratory**  
**Report(s)**

## CHAIN OF CUSTODY RECORD

No. 38923

CUSTOMER INFORMATION		PROJECT INFORMATION		ANALYSIS/METHOD REQUEST		LAB ID#:	
COMPANY: <i>TCE Solutions</i>	SEND REPORT TO: <i>Alonzo A. Arredondo</i>	PROJECT NUMBER: <i>Falcon Refinery</i>	BILLING INFORMATION	Loc: 560	28815	Loc: 560	28815
ADDRESS: <i>1001 Meadowgen Ste.100 Houston TX 77042</i>	PHONE: <i>512-699-9931</i>	BILL TO: <i>Accounts payable</i>	ADDRESS:	SEAL INTACT: <i>N/A</i>	COOLER TEMP: <i>N/A</i>	IR GUN ID: <i>N/A</i>	INITIAL DATE: <i>10/21/11</i>
FAX: <i></i>	FAX: <i></i>	PHONE: <i></i>	FAX: <i></i>	PO NO.: <i></i>	PO NO.: <i></i>	PO NO.: <i></i>	PO NO.: <i></i>
NUMBER OF CONTAINERS							
SAMPLE NO.	SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER	PRESERV.	
1	Insulation-fiberglass	10/20/2011	2:30pm	Solid plastic	N/A	X	Test for asbestos
SHIPMENT METHOD:							
REQUERED TURNAROUND		<input type="checkbox"/> ROUTINE (10 BUSINESS DAYS)		<input checked="" type="checkbox"/> RUSH TAT (MAY REQUIRE SURCHARGE)		AIRBILL NO.: <i>48 hr</i>	
RETRIEVED BY:	SIGNATURE: <i>A. Arredondo</i>	DATE: <i>10/21/11</i>	RETRIEVED BY:	SIGNATURE: <i>J. Clark</i>	DATE: <i>10/21/11</i>	RETRIEVED BY:	SIGNATURE: <i>J. Clark</i>
SIGNED FOR COMPANY: <i>Arredondo/TCE</i>	PRINTED NAME/COMPANY: <i>Arredondo/TCE</i>	TIME: <i>10:51 AM</i>	SIGNED FOR COMPANY: <i>TestAmerica</i>	PRINTED NAME/COMPANY: <i>TestAmerica</i>	TIME: <i>10:51 AM</i>	SIGNED FOR COMPANY: <i>TestAmerica</i>	PRINTED NAME/COMPANY: <i>TestAmerica</i>
RECEIVED BY:	SIGNATURE: <i>J. Clark</i>	DATE: <i>10/21/11</i>	RECEIVED BY:	SIGNATURE: <i>J. Clark</i>	DATE: <i>10/21/11</i>	RECEIVED BY:	SIGNATURE: <i>J. Clark</i>
SIGNED FOR COMPANY: <i>TestAmerica</i>	PRINTED NAME/COMPANY: <i>TestAmerica</i>	TIME: <i>10:51 AM</i>	SIGNED FOR COMPANY: <i>TestAmerica</i>	PRINTED NAME/COMPANY: <i>TestAmerica</i>	TIME: <i>10:51 AM</i>	SIGNED FOR COMPANY: <i>TestAmerica</i>	PRINTED NAME/COMPANY: <i>TestAmerica</i>
DATE: <i>10/25/2011</i>							

## Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 560-28815-1

**Login Number:** 28815

**List Source:** TestAmerica Corpus Christi

**List Number:** 1

**Creator:** McDermott, Vivian

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	Asbestos
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	